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**PRACTICAL OBSERVATIONS,**  
*&c. &c.*

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**PRACTICAL OBSERVATIONS**

ON

**CHRONIC AFFECTIONS**

OF

**THE DIGESTIVE ORGANS.**

AND ON

**BILIOUS AND NERVOUS DISORDERS;**

BEING AN ATTEMPT TO COMBINE WITH ENGLISH PRACTICE. SOME  
USEFUL METHODS OF CURE EMPLOYED ON THE CONTINENT.

ALSO REMARKS

*On Warm Mineral Baths,*

**MINERAL WATERS IN GENERAL,**

AND ON THE USE AND ABUSE OF

***THE CHELTENHAM WATERS.***

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**By JOHN THOMAS, M. D.**

MANY YEARS RESIDENT PHYSICIAN AT TOULOUSE, NOW  
PRACTISING AT CHELTENHAM.

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**CHELTENHAM.**

PRINTED BY S. Y. GRIFFITH, AT THE CHRONICLE OFFICE,  
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1820.





TO  
**SIR JAMES M'GRIGOR, M. D.**

COMMANDER OF THE TOWER AND SWORD ;  
FELLOW OF THE ROYAL SOCIETIES OF LONDON AND  
EDINBURGH ;  
FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS OF  
EDINBURGH ;  
HONORARY FELLOW OF THE ROYAL COLLEGE OF SURGEONS  
OF IRELAND ;  
PHYSICIAN EXTRAORDINARY TO THE KING ;  
AND DIRECTOR-GENERAL OF THE ARMY MEDICAL  
DEPARTMENT.

DEAR SIR,

*THE permission of dedicating to a person of your accurate judgment and well-known respectability of private and professional character the following Work, will, I doubt not, have no small influence in recommending it to public notice ; yet whatever may be the general opinion as to its importance or merit,*



*I shall feel considerable satisfaction in the consciousness that the contents are the fruits of careful observation and long experience, and that it is my most ardent desire to point out the means which I am convinced are the most conducive to the greatest blessing of life, the recovery of health.*

*I must not omit to express the personal gratification I feel in being allowed to offer you this tribute of friendship ; and, although in a small degree, to do justice to the sentiments of esteem and respect with which I am,*

*Dear Sir,*

*Truly Yours,*

JOHN THOMAS.

*High-Street, Cheltenham,*

*Dec. 1820.*







# PRACTICAL OBSERVATIONS

ON

CHRONIC AFFECTIONS,

&c. &c.

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THE science of Medicine, though partaking more or less of every other science, both moral and physical, may, for the sake of perspicuity, be divided into two parts ; the first of which comprehends the science of organization and the laws and functions of organs ; or the science of the collective union and succession of the sensibility and contractility which living organized bodies possess, or, in more familiar language, an exact knowledge of the structure of the human body, and of the combined and separate offices of the different parts of this fearfully



and wonderfully formed machine, harmonized by its great Author so as to support and preserve for a time, that moral and physical phenomenon, Man.

In the study of Medicine, this part is subdivided into two more; the first, Anatomy, or the science of organization, — second Physiology, or the economy of living organized bodies.

Many truly respectable authors consider the perfective part of Physiology as the exclusive province of the young Physician, and with reason, for, in the first place, he will have it in his power to bestow a larger portion of time on its cultivation, and, in the second, having the science of organization as well as the accessory moral and physical sciences more recently impressed on his mind, he can with facility make them contribute to his discoveries, by employing their aid in his experiments.

A profound knowledge of the economy and harmony of the human functions, of the organic and animal sensibility, of the gene-

ral and particular sympathies that exist in health, is absolutely necessary to enable a man to appreciate the discord or disorder of those functions which constitute maladies. Physiology to the physician is what the compass is to the mariner.

Although Physiology forms a most essential part of the science of Medicine, yet alone it can hardly be considered more than the well cultivated soil, ready to receive the seed, or the foundation traced to the solid rock whereon the superstructure is to be raised.

The Physiologist will not stop here ; he will be too modest to think that he has already penetrated into the sanctuary of Medicine ; he will now read and meditate the writings of the fathers of the Art, with unwearied zeal he will review what they have seen, and ponder well their manner of thinking ; and then, to verify his theory, thus acquired, he will repair to the asylum of wretchedness and despair, where disease and death present

themselves to view, in multiplied and varied terrific forms.

Here he will begin his experience, here he will commence his observations, and from hence he will prosecute the one and the other with a rigid exactness, proceeding analytically from case to case, and from symptom to symptom, and thus begin the second part of the science of Medicine, *viz.* Pathology, or the history and knowledge of maladies, which will lead him to the study of Therapeutics, or curative indications which forms a very essential branch of Pathology. And in order to acquire a still more perfect idea of the one and the other, “*Post mortem inspection*” of every unfortunate case should never be omitted when practicable.

Under such circumstances the practitioner will enter life without a bias for any system; he will carry with him the same method of analysis, and note down every case that occurs to him in his private practice; and having thus proceeded for some years, he



may presume that he has acquired the gift of observation, founded on authentic experience.

In my humble opinion, no man should in the present enlightened state of Medicine, publish any observations that are not his own, particularly on the history and treatment of chronic diseases ; no compilations, still less collections of observations written by different authors, and united together by one man, who has not seen the patients, should ever be permitted.

It will, most probably, be thought that I have greatly digressed from the subject announced in the title page of this little work, but as I have to introduce a practice not general in this country, and as it is common to man to dislike, not to say despise, any thing beyond his own established routine, I have to request every one so disposed to weigh the subject, physiologically and pathologically, before he forms an opinion.

In the present day many gentlemen, both in England and on the Continent, have ac-

quired a just celebrity by adopting the method of analysis, or the method of observation ; they have also by these means greatly contributed to the improvement of the science of Medicine ; they have taken away a great many impediments to its farther advancement ; they have taught men to think for themselves, and to rely on their own experience, founded on a perfect knowledge of the structure of the organs of the human body, and correct and enlarged views of their functions ; they have destroyed those systems that were not established on such a foundation, and they have taught us to respect, but not to place implicit confidence in the opinions of the ancients.

Were I to attempt to distinguish by name all the eminent characters above alluded to, the list would be too long, and, besides, it would be foreign to the subject to which the following pages are directed, but that very subject obliges me to mention two gentlemen who have already treated it, in my opinion, in a very superior manner, indeed in such a



manner, that nothing but the hope of being able to glean a few scattered ideas, not taken up, overlooked, or, perhaps, not thought of by those able Pathologists, could have tempted me to explore a ground already so well known. They have proceeded analytically, step by step, case by case, symptom by symptom, and by those means established, not a system, not a vain theory, but a true Pathology and Therapeutic on a solid foundation.

I am not vain enough to suppose that any thing I can say in favour or in prejudice of the two very highly meritorious works in question, or their truly respectable authors can be of much weight; they have already passed through the fiery ordeal of public opinion, and have been stamped with the seal of public approbation,—I allude to Dr. James Hamilton of Edinburgh and Mr. Abernethy.

I have also had many years extensive practice, a great part of which in a south-



ern climate, and having mostly taken notes of such cases as came under my care, I have selected a few of them with an intention to publish. These cases, in my opinion, prove that the practice established by the gentlemen above alluded to, (a practice varied in form but perfectly similar in effect), I say that this practice combined with or assisted by the mode of treatment I am about to recommend, has been at least as successful in a warm climate as it has been in the more northern atmosphere of England and Scotland. In the slighter Pathology or mere functional disorders of the digestive or chylopoiëtic organs, the only addition I have been under the necessity of making to the use of the blue pill, calomel, or some drastic purgatives in small doses, was that of clysmas, and warm baths,—but in chronic inflammations, or congestions of the different cavities, particularly that of the abdomen, I have found much advantage in depleting those vessels that contribute to

feed the *vena portarum*, as well as other veins in a state of congestion in the tissues or parenchyma of the abdominal viscera.

I have to regret that, mine being private practice while on the Continent, I cannot produce any "*post mortem*" inspections of my own in support of a practice I am so anxious to recommend, but the immortal works of Morgagni, "*de causis et sedibus*," as well as the works of so many modern Pathologists, very clearly establish the rationality of such a practice. Besides its success, so many living proofs, together with the concurrent approbation and recommendation of so many eminent living practitioners, leave not a doubt in a candid and unprejudiced mind as to its great advantage. I therefore hope to be able to turn the attention of the medical men of my own country to the useful means that will presently be more fully explained, not with a view to supersede the English practice, but to render it more efficacious in relieving suffering humanity.

Dr. Hamilton has clearly demonstrated that purgative medicines, under certain modifications, are capable not only of relieving, but also of removing or curing disorders which were, and still are, too often treated in a very different manner, and under different views, and most commonly with a very uncertain success ; he has thereby laid the foundation for an induction, that many maladies classed by the most learned Nosologists, as pyrexiaë and neuroses, (fevers and nervous disorders), are very commonly but a very disturbed state of the function of digestion and assimilation, sometimes degenerating by neglect, or what is still worse, improper treatment, into obstruction, congestion, or inflammation of one or more of those organs destined to perform the first function in the animal economy.

Mr. Abernethy has confirmed all this, and has furthermore proved that local diseases produce disorders of the stomach and bowels and of the other digestive or chylopoiëtic viscera, and *vice versa* ; thus establishing



unequivocal proofs of the great analogy and intimate connexion that subsists between the disordered state of the digestive apparatus and that class of diseases called locales.

Thus we see three classes of disease, according to Dr. Cullen's "*Nosologica Methodica*," occasioned by disordered function of the digestive organs, and disappearing as soon as those disorders are again allayed or pacified; I do not pretend to say that all diseases of these classes arise from this cause, but I do maintain that in the treatment of all disorders or diseases too much attention cannot be paid to the state of the bowels and of the digestive organs; moreover, with due submission, I would seriously recommend to gentlemen who have the advantage of hospital practice, to investigate attentively and analytically how far disordered functions and organic inflammations may be considered as cause, and how far as effect of disease. As to the remaining class of Dr. Cullen's *Nosologica Methodica*, (*cachexiæ*), no one will deny

that many of the diseases forming this class, act upon, and are influenced by, the digestive organs.

Nosological classification of diseases is necessary for the Professor and for the Student; it seems to convey certain notions of, and gives certain names to, different modifications or conditions of disturbed functional harmony, as well as to different organic affections, with a view to impress on the mind the nature and extent of such disturbances or such disorders, as well as of such diseases;—but, unfortunately, too often it fails in its principal object; the nature and extent of the disorder or disease is ill understood, or altogether mistaken; the name is given, and that name conveys an idea of a very different modification or condition.

Giving names to disorders too hastily is the scourge of the science; it has been the means of generating inveterate and incurable diseases, for when once the complaint is baptized, (if I may be allowed the expression), the medical attendant ransacks his

brains, and most probably his library too, to find out the best mode of prescribing for the name, leaving the complaint to chance, or, perhaps, something worse. This is a prolific source of organic diseases, and would form a very essential part of a rational history of chronic affections of the digestive organs.

Moreover, how many disorders occur to the experienced Physician that cannot be classified at all? ask any candid practitioner of thirty or forty years standing, if he has not met with more anomalies in the course of his practice than regular nosologically classified diseases. I believe there will be found very few men of sound judgment and authentic experience that will not allow this, even in acute disorders, and much more in chronic complaints.

This, if true, furnishes further proofs of the necessity of cultivating pathological and therapeutic knowledge by analytical observations,—and, at the same time, an useful and advantageous lesson to those indi-



viduals who think themselves warranted to prescribe for themselves or friends from reading popular medical books, where they will find prescriptions for every name they, from the similarity of a few leading symptoms, may think themselves capable of bestowing on any indisposition they may labour under. I would recommend to such persons to be careful, and not trust too much to their own judgment. The science of Medicine consists more in investigating the cause and progress of maladies, than in prescribing remedies for their cure.

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*Case illustrative of the effect of Leeches applied to the Anus, in addition to the use of the Pilula Hydrargyri, and drastic purgative Medicine.*

Mr. D' Ad————n, æt. 30, native of Toulouse, of a very ancient family, who had

suffered much by the revolution, was naturally of a delicate constitution, had been labouring under ascites and anasarca for upwards of two months, during that time was attended by a respectable Physician of the town, who had held different consultations, and I understood from the family surgeon, an intelligent and well informed man, Mons. Viguerie, that the result of the consultation was an idea that the patient being subject to rheumatism, a slow conversion of external rheumatism had been made to some internal organ, similar to those cases in Morgagni's work *de Causis et Sedi-bus Morborum*.

The abdomen, when I saw him, was so distended, and the parietes so stretched, that nothing could be discovered in that cavity but a fluctuation; there was an emphyzema between the third and fourth, and also between the fourth and fifth ribs on the right side of the thorax; those gentlemen who saw him before me were of opinion, from this circumstance, that the seat of

disease was the right lobe of the lungs ; this appeared reasonable. I saw the patient for the first time on the 8th of September, 1810, —his tongue was white and dry, his pulse weak and irregular, (from 110 to 120), his skin sometimes hot, sometimes cold, but rough and dry, urine high coloured and scanty, bowels costive, little or no sleep, great thirst, respiration difficult and laborious, general strength much exhausted, no appetite, but was supported by a small basin of beef and fowl broth, (*bouillon*), an invariable diet in French practice let the complaint be what it may ; this he took every four hours, drinking a tablespoonful of wine immediately upon it. It had been decided at each consultation that the patient could not resist the operation of paracentesis, and prudence dictated to me not to prescribe it under such circumstances, and the more so as I saw very little reason to hope for his life.

I prescribed a clyisma of warm water with an ounce of the muriate of soda dissolved



in it, which produced a small fluid, dark green dejection; also a draught, the basis of which was half an ounce of the solution of the acetate of ammonia, which he took every four hours, alternately with the broth, and the next morning he took the following decoction:

R Leontodon taraxici recentis, radicis et folii, unciam unam coque ex Aquæ libram unam, ad libram dimidiam, subfinem coctionis adde supertartratis potassæ drachmam dimidiam. Herbæ Gratiolæ siccæ scrupulam unam, ac cola.

The Apothecary, in order to *Frenchify* this remedy, added to it two ounces of veal deprived of all its fat; as there is a great predilection in France for medicated broths, I did not object to this addition; the patient also liked the idea of taking broth rather than medicine. When I can do so, I always yield to the wish of the sick in the form of the remedy.

This produced one copious stool in the course of the day, it was dark and contained

much scybala.—I did not consider this evacuation sufficient, I therefore ordered the gratiola to be augmented to half a dram, and to continue the draught with the spirit of mindererus as prescribed yesterday—and for his common drink a weak solution of the supertartras of potasse, or cream of tartar.

He took the decoction, or medicated broth, the next morning, and in the course of the day he had four copious alvine dejections of a bottle green colour with much scybala, which were several shades darker than the more fluid matter; his breathing was a little relieved, the urine less scanty, the pulse less frequent, scarcely passing 100, and more regular withal.

The same means were continued, and the same result obtained, the alvine excretions continued equally copious and of the same colour, the urine became daily more abundant, the pulse more regular, less frequent, and the artery describing a larger circumference; in short a general amendment and an increase of strength were very obviously

observed to keep pace with the evacuations.

No alteration in the treatment until the 24th, when the volume of the abdomen was sufficiently sunk or diminished to admit the examination of it ; it was carefully explored by Mr. Viguerie and myself, and we plainly discovered the liver to be much enlarged, but no appearance of any other viscus being affected,—the liver descended full two inches below the false ribs.

It is worthy notice, that the patient's skin had no yellow appearance, but the tunica conjunctiva was slightly tinged, and so slightly, that no one would have supposed any organic lesion of the liver. The emphyzema on the right side of the thorax appeared no longer problematic, the diaphragm being forced into that cavity by the increased volume of the liver producing that phenomenon.

Under these circumstances I ordered as follows :



1st. Eight leeches to be applied to the anus.

2d. Five grains of the *Pilula Hydrargyri* Ph. Lond. to be taken every night at bed time.

3d. To continue the medicated broth every morning.

28th. The liver sensibly diminished—the stools approaching their natural colour—urine plentiful—the anasarca nearly dispersed,—no fluctuation perceptible in the abdomen, and the skin acquiring that softness inseparable with health—the pulse 80 and regular. The patient expressed a desire to eat—the breast of a roasted chicken was allowed him, which he ate with great pleasure with the end of a roll and a glass of wine and water.

The same remedies persisted in.

30th. Six more leeches to the anus.

October 2d. A blistering plaister applied to the hepatic region.

6th. Although the cuticle was not re-

moved, and the blister was only dressed with wax cerate, I never knew a patient to suffer so much from such an application ; the discharge was excessive, and it took ten or twelve days before it was healed. The use of the blue pill was continued, and a simple decoction of the dandelion without the gratiola—and on the twentieth the patient went to his country house, about four miles from town, where he remained a month, and returned in perfect convalescence. He continued gaining strength gradually by only taking now and then, during a couple of months after his return to town, a pill composed of rhubarb, aloes, and ipecacuenha, to stimulate the action of the bowels ; he has enjoyed better health since this illness than he had for some time before, and I left him perfectly well on the 15th of June, 1820, the day I quitted Toulouse.

After the recovery of this gentleman, I became the Physician of all his family and of many of his friends ; I have attended his mother and one or two sisters, with what

they termed rheumatism, which, in fact, I discovered to be gout, and from what I have been able to collect from the history of my hydropic patient's previous state of health, I am fully persuaded in my own mind, that what was called rheumatism in him was really gout. *Quere*, may not this be said to be a case of organic affection, determined by a slow conversion of external gout?

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*A Case of Chronic Organic Affection of the Liver.*

Mr. Larrien, between 50 and 60 years of age, of a dark complexion, whose occupation was frequenting fairs, to buy cattle, having a contract to furnish a part of the army, as well as the town of Toulouse with butchers' meat; generally irregular in his living, and frequently exposed to mental disquietude



and bodily fatigue, had been complaining for several months of a want of appetite, sour eructations after eating, palpitation of the heart, languor, heartburn, dejection of spirits, head-ach, accompanied with much emaciation, and a general weakness. He consulted a physician of considerable reputation in the town, who, as far as I could learn, treated his complaint as nervous, prescribing those medicines usually ordered in such cases, particularly diffusible stimuli, at the same time advising gentle exercise, and every other means to amuse and employ his mind without fatiguing it,—to this treatment tonics were added, after some time, and the patient had the misfortune to find himself getting worse and worse very fast.

One of my patients, a friend of his, recommended him to consult me ; he began by discharging his Physician, and sent for me :—I regretted I could not see that gentleman, that we might consult together ; he said it was the very thing he wished to avoid, for if we had met, I should have fol-

lowed his former Physician's ideas and not my own—he wished me not only to give him a prescription, but to take him under my care. This serves to prove the temper and disposition of the patient.

It was the 13th of October, 1813.—I found his skin hot and dry, his tongue much furred with a buffy or yellow tinge, his pulse small, weak, ranging from 100 to 110, no appetite, a bitter taste on the tongue, much thirst, head-ach, a pain on the top of the right shoulder, his bowels very irregular, generally costive, but sometimes passing a small quantity of alvine fluid, perfectly characteristic of those partial excretions often met with in deranged functions of the colon, the urine scanty and high coloured; on examining the state of the abdomen, I easily discovered the liver to be preternaturally large, and its convex surface very sensible to the touch. The patient had been ill nearly eight months, and was much reduced in strength—and towards evening the feet and ancles were a little swelled. I began by

ordering the application of eight leeches to the anus, and the next morning an ounce and a half of the oleum ricini was given him in a little broth ; he had two copious evacuations of dark greenish matter, with scybala.

15th. Took five grains of calomel with ten of rhubarb, which gave only one evacuation, and that late in the evening.

16th. Appeared more cheerful, had past a good night, his skin less hot, and rather softer, his pulse from 90 to 96. I had put him on what is termed in France "*la diete*," that is, he took a small cup of from six to eight ounces of broth every five or six hours, with a small spoonful of wine after each dose ; barley water was his common drink ; this I ordered to be continued, and in the evening he took five grains of the Pil. Hydrargyri, or blue pill, and the next morning he repeated the castor oil, an ounce and a half.

17th. Had two copious motions and one less copious of the same sort of matter as mentioned before.



I ordered the blue pill to be repeated night and morning for two days, which had the effect of keeping the bowels open.

20th. Six leeches applied to the anus. To continue the use of the blue pill.

21st. Applicatur emplastrum lyttæ regioni hepaticæ. Pergat in usu pilulæ hydrargyri.

23d. Much better, his pulse 80—had slept well, urine much more abundant, though suffering a little from the common effect of the blister.

25th. The blister nearly healed ; I ordered him, in addition to the remedies abovementioned, to take a warm bath in the morning of the 26th. I ordered the bath at ninety degrees of Farenheit, and had it made an artificial mineral bath, to imitate those of Bareges.

27th. Much better in every respect, and he seemed much delighted with the bath. I ordered it to be repeated on the 28th, and augmented its temperature to ninety-six degrees. By continuing the baths at this degree of heat every other day until he had

taken a dozen baths ; by the use of the blue pill for about three weeks longer, assisted by castor oil, and afterwards by a few grains of the *extractum colocynthis compositum* given about twice a week to stimulate the large intestines, and a decoction of the *leontodon taraxacum*, in which fifteen grains of carbonate of soda was given twice a day for about a month, the patient was perfectly restored to health. To consolidate the cure, the patient went to Bagneres de Bigorre the summer following, and drank the saline waters for fifteen or twenty days, and took the warm mineral baths ; has since married a young wife, by whom he has had two stout healthy children, who, with the father, were well in the month of June, 1820.

*Quere*, may not this case be considered as a fair example of the consequence of prescribing for the name instead of the disorder ? may it not serve as a lesson to nervous and bilious Physicians, as well as to those (if there yet remain any such,) who extol the system of Brown ?



*A Case of Hepatitis arrested by a partial resolution, and degenerated into a Chronic Affection.*

Mr. Bascon, 32 years of age, a proprietor and very extensive cultivator, what we should call in England a very topping or rich farmer, a very active man, carrying on a great trade in cattle as well, and consequently attending fairs and living very irregularly; a fair complexion, middle sized, his mind easily excited, or, in other words, easily put into a passion. In the latter end of the summer of 1812, he suffered with a complaint that his medical attendant deemed to be a bilious and remitting fever, he had much pain in the right hypochondrium and a fever which continued nearly three weeks, one day always worse than the other; among various means employed during his illness, he could only tell me that a large blister was applied to the seat of pain, and



that it was kept open for nearly a fortnight, from which he conceived he derived much benefit; he got better and went about his business as usual, but never could recover his strength nor wonted spirits, and frequently he was obliged to remain in the house for several days together, complaining of a continued head-ach, a want of appetite, a general disquietude, a fractiousness, and a shortness of breath on ascending a rising ground; he continued in this state until the beginning of June, 1813, when he applied for my advice.

I discovered a considerable enlargement of the liver, his complexion sallow, his tongue white, the conjunctiva injected with a yellow tinge, an habitual costiveness, urine scanty and high coloured, pulse small, weak, frequent, 114, but regular, the skin hot, dry and rough, a short dry cough, the cubitus difficult, not practicable on the left side; he appeared very weak as to his general strength, little or no appetite, and a sense of fullness after taking the least nou-

ishment, whether solid or liquid. On the 3d of June I ordered a clyisma of warm water, to be repeated until a dejection was procured, and the next morning to apply eight leeches to the anus. I saw him on the afternoon of the 4th ; he had thrown up three injections before any effect was produced, and the evacuation consisted of a few scybala, nearly black. The leeches had all taken, and produced a sufficient discharge of blood ; the patient appeared rather faint ; I ordered him some good broth, with a little good old wine after it, which appeared to revive him ; he spoke cheerfully, and said he hoped he should soon be better. The 5th, in the morning, he took an ounce and a half of oleum ricini. I saw him in the afternoon ; the oil had procured one copious motion, of a dark colour, with much scybala. Pulse 110, skin less hot and not quite so dry.

I ordered five grains of the Pil. Hydrargyri night and morning.

He was also ordered half an ounce of the solution of acetate of ammonia every four



hours in a little of his common drink or tisanne, which was made of pearl barley and the roots of couch grass (gramen), a drink to which the French attribute much virtue, and which I consider perfectly harmless, and therefore permit the use of it whenever I wish to recommend a diluting drink; he took a cup of broth every four hours alternately with the acetate of ammonia. I observed before, that broth, or bouillons, must be given in France in every complaint where the patient keeps his bed, although in this case necessary, but in many useless, if not hurtful; but custom is very arbitrary. I saw him again on the 7th, in the morning, he had had but one scanty motion since the castor oil, I therefore ordered it to be repeated; continuing the pill and other means prescribed.

9th. One good motion had been produced yesterday; no considerable amendment, the skin still too hot and too dry, pulse 108. *Applicentur hyrudines sex ano.* *Pergat in usu remediorum.*



10th. The leeches had produced a copious bleeding, which the patient bore without the least sign of faintness, had a free alvine evacuation this morning, appeared much relieved, his pulse 96, tongue cleaner at the edges, skin less hot, and of a more natural feel, the urine also more copious, but still high coloured. To continue till the 14th, every thing going on favourably. The castor oil was repeated and produced two copious stools ; there still remained a preternatural enlargement of the liver. I ordered a large blistering plaister to be applied to that region—to be taken off the next morning without removing the epidermis or scarf skin. A fine blister was produced, and it was dressed simply with wax cerate (*cerat de Gallien*). The patient continued the use of the blue pill, and the acetate of ammonia, with once more the castor oil until the 20th. When his mouth became sore, I judged it necessary to discontinue the blue pill ; his pulse was now reduced to 80, his stools regular, and approaching a natural colour, his

urine much improved in colour and in quantity ; the skin had resumed its natural feel, and had it not been for his mouth, he said he could eat a hearty dinner ; he was allowed to have bread in his broth, which was the first he had eaten for some days ; he was also allowed some boiled chicken or boiled mutton. I ordered him one of the following pills every other night :

R Rad Rhei. pulv. scrupulas duas

Ipecacuanhæ pulv.

Aloes socotrini ana scrupulam unam

Saponis drachmam dimidiam

Syrupi q. s. ut fiat massa in

Pilulas Nō. xx. dividenda.

I also ordered him a warm bath at ninety-six degrees of Farenheit's every morning.

In the course of a week his mouth got well, he walked about his apartment, and in a month, to the very day, he came to put himself under my care, he went home pretty well ; he continued the opening pills every third or fourth night, and resumed the use of the blue pill once or twice a week,

with a tumbler-glass full of the decoction of the roots and leaves of the dandelion ; in this manner he passed the month of July ; at the latter end of that month he came to see me, I found he had gained strength, his colour quite changed and become natural, his appetite and digestion good ; but there still remained a little turgescence in the liver, and the bowels were inactive, and obliged to be stimulated by the pills. I ordered him to Bagneres de Bigorre, celebrated for its saline and sulphureous waters and baths ; he drank the saline waters every morning, took a blue pill every other night, and a warm sulphureous bath every other morning ; by these means, and a well-regulated regimen, gentle exercise on horseback, and absence from the toil and fatigue of business, he returned home the beginning of September in perfect health.



*Another Case of Hepatitis degenerated into a  
Chronic Affection.*

Major S——y, in the service of the United States of America, applied to me in the month of October, 1816; he had served in Louisiana in the campaign of 1814, where he suffered much with an intermittent, very prevalent in that country, and was obliged to quit that station on account of his health. All I could collect from the Major as to the medical treatment he had undergone, was that he had taken the cinchona in large quantities, which stopped the ague fits for a short time, but they returned with more intensity, accompanied with an acute pain of the right hypochondrium; that he had been blistered on that side, and taken much medicine, but could not tell what he took; he was sent home, where he recovered from fever, but his general health continued much

impaired. In the beginning of the year 1816 he accepted an appointment from his government in France, and for the advantage of his health, decided on passing the winter in the South ; he came to Toulouse. He told me he was thirty-two years of age ; he is of a fair complexion, middling stature, rather a melancholy turn of mind, of a leucophlegmatic habit ; I observed his tongue white, bowels costive, urine scanty and not very high coloured, his pulse weak, and not exceeding 60 ; his face appeared bloated in the morning, and his ankles a little swelled at night ; on examining the abdomen and percussing the thorax, I observed the right side of the latter to yield a dull sound in comparison with the left side, and the right hypochondrium appeared fuller than the left. Moreover I could plainly discover the liver under my fingers, and consequently deemed it preternaturally large. Judging from these symptoms, I concluded that this was a case of venous congestion in the liver, I prescribed as follows :

October 15th. Applicentur hirudines, No. sex ano.

The same evening five grains of calomel and ten of rhubarb. The next day he had two small dejections, the first clay-coloured, the second appeared to be tinged by the rhubarb. The leeches had effected a copious bleeding. I ordered the calomel and rhubarb to be repeated at night, and the next morning, the 17th, to take ten drachms of castor oil, the effect of which was to produce two very copious stools, dark coloured, with scybala.

18th. The patient appeared a little more cheerful, his pulse appeared rather stronger, and was 68. I ordered five grains of the blue pill every night.

19th. Applicentur hirudines sex ano.

20th.—21st. The pill continued, the bowels gently moved every day.

22d. Applicatur emplastrum lyttæ amplum regioni hepaticæ.

23d. The plaister was taken off and the blister dressed with the common wax cerate,



and suffered to heal in a few days, the blue pill being continued every night.

30th. The blister healed, the patient appeared much relieved ; ordered him to take one of the blue pills twice or three times a week, to take a glass of a strong decoction of roots of dandelion every morning, to keep himself warm , and occasionally take a pill of four or five grains of the extractum colocynthis compositum to keep his bowels open. With this plan, interrupting all remedies sometimes for a fortnight together, the Major passed the Winter and Spring very tolerably, going out and receiving company at home, and in the Summer following he went to Bagnères de Bigorre, where he drank the saline waters and took the warm mineral baths of that place with very great advantage, and finished his course of the waters by taking those of the ferruginous or chalybeate spring, and when I heard last of him he was in good health.

N. B.—This gentleman, and some others of those patients I had recommended to take

the saline waters of Bigorre, complained of languor, thirst, painful digestion, and a sense of pain in the chest, with flatulency, after taking them ten days or a fortnight; and I observed these symptoms to happen chiefly to those persons who did not combine the use of the warm baths with the drinking the waters, and generally by the use of two or three baths these symptoms disappeared, I mean the warm mineral baths of Bagneres, so it happened to the Major.

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*A Case illustrative of the influence of the Liver on the sensitive and contractile forces or the Nervous and Muscular System.*

Mr. D———t, a merchant and banker of Toulouse, appeared to be about 30 years of age, was confined to his bed with the entire

loss of the use of the lower extremities. I was desired to meet four or five other physicians in consultation on his case. The gentleman who had been in the habit of attending him could give no other information to those who formed the consultation, than that the complaint had been coming on gradually for some years, and had augmented latterly in a very rapid manner, for neither the one nor the other could they assign any cause. The vertebral column had been examined over and over again, and no deviation nor painful sensibility could be discovered in any portion of it; he had no fever, his appetite capricious, bowels generally costive, though he sometimes passed a small quantity of fluid feculent matter, his tongue white, complained much of head-ach, was very soon put into a state of excitability of the mind and of the nerves, his skin dry and tinged with yellow, was much emaciated; no one could imagine what could be the predisposing cause, it was therefore placed to the account of the bile and the nerves.



Gentle opening remedies, according to the strength of the patient, were ordered, combined with some antispasmodics, frictions, &c. &c. The effect of such a prescription may be easily anticipated; it did afford some relief, and that was all.

About six weeks after our consultation the patient died; and the family surgeon, Mr. Duclos, whose veracity no one who knows him will doubt, told me that on inspection, "post mortem," the three great cavities and the vertebral column were minutely examined, no organic affection whatever had been discovered; in the gall-bladder were found several calculi, each as large as the top of a man's finger, (*Gros comme le bout du doigt* was the expression), with no other appearance of disease.

*Case of Dropsy with an obstructed Spleen.*

Monsieur l'Abbè de St. A——s, between 60 and 70, had been a valetudinarian for some years, having suffered much during the revolution both in person and in property. I had been in the habit of seeing him now and then ever since the month of June, 1809, when he appeared to be labouring under an attack of asthma ; I prescribed for him then such remedies as are usually given in such cases, particularly recommending him to pay attention to the state of his bowels ; he soon recovered his ordinary state of health, and regularly used once a week to walk from his parish to town and back again, making altogether six miles ; he continued in this manner till the latter end of the Summer of 1815, when he was laid up in the country under the care of a country surgeon ; in the month of October he was conveyed to town, and I was sent for,



I found him labouring much with his breath, his lower extremities oedematous, with a considerable quantity of fluid in the cavity of the abdomen, and the spleen very considerably enlarged, occupying the whole of the left hypochondrium, describing nearly a triangular form, with the most acute angle passing beyond the umbilicus about two inches; I proposed a consultation, which took place the next day, the 20th, and it was unanimously decided that the operation of paracentesis should be performed, which was accordingly done on the 21st in the Linea Alba, the spleen, as I observed above, occupying the whole of the left hypochondrium. Nineteen pounds of a serous fluid, evidently tinged with blood, not in streaks, were evacuated. The patient was ordered an anodyne draught at night; he felt a relief from the weight, and his breathing was much better, but the spleen was now more evident than before the operation, and was so very sensible to the touch that the patient cried out when we attempted to feel it. A mixture



with the solution of acetate of ammonia and a small quantity of opium was given every four hours, and the bowels kept open with small doses of castor oil.

25th. Applicentur hyrudines No. octo, ano, Pergat in usu mixturæ.

27th. The spleen less sensible; the patient found himself considerably relieved; the mixture was continued with the castor oil.

28th. Ten leeches were applied to the left hypochondrium, they procured a copious bleeding, and the next day the patient seemed better, the sensibility of the diseased organ was certainly diminished, but we could not perceive any diminution in its volume; the patient's strength was not diminished, he took sufficiently of good broth, and a tablespoonful of good old wine after each basin of broth. To continue his medicines.

November 1st. Applicentur hyrudines No. octo, ano.

2d. The spleen not only infinitely less painful, but a diminution of its volume was really visible. To continue the mixture, and instead of

the castor oil five grains of the blue pill were given every night ; he continued this treatment for a month, and twice more applied three or four leeches to the anus,—ten days interval between each application, and quite contrary to my expectations, the patient got about again. The spleen, though reduced to less than one-fourth its size before the first application of the leeches, could always be easily discovered by the hand when sought after, but his general health was better after this treatment than it had been for six years before. He lived four years after, and died suddenly in the country in the month of December, 1819. There was no inspection of his body after death, which, in my opinion, was a great medical misfortune.

*Case of Dropsy apparently from Chronic Inflammation of the Peritoneum.*

In the month of July, 1817, I was sent for to an inn to see a young person, 24 years of age, who had come the evening before from a small town about thirty miles from Toulouse, (Beaumont de Lomaine) Madsle. St. G———e's. I found her face flushed, her tongue white and dry, pulse hardly perceptible at the wrist, was frequent, 114, or thereabouts, for it was so small that I could hardly count it. Her upper and lower extremities were oedematous, the abdomen very much distended, and an evident fluctuation, the parietes so sensibly painful, that she could scarcely suffer the weight of the finger upon it, which, with the immense size she was of, precluded every means of exploring the abdominal viscera; could not lie down in her bed, but was obliged to be bolstered up to nearly an erect posture,



breathing laborious, skin hot and dry, much thirst, costive, urine very scanty and high coloured, making scarcely a tablespoonful at a time. She shewed me some of the prescriptions of the remedies that had been ordered for her ; among others there was one consisting of calomel combined with digitalis and squill, and another with the two latter without the calomel ; she could not suffer either the one or the other of these remedies, nor the acetate of potasse, nor any of the many other active diuretics that had been ordered for her ; she found herself much worse whenever she took any thing that is generally considered as having the effect of making a determination to the urinary passages, as she did also whenever she took any of the saline or other active purgatives. Reflecting on this case, I thought it afforded a fair opportunity of investigating the necessity of considering dropsy, not as the effect of debility in the absorbing vessels, but very often as that of excitement of the exhalents ; here were evident marks of the presence of a long

continued irritation, if not a modification of inflammation; and as I had seen cases of dropsy rapidly supervening chronic inflammation of the mucus as also of the serous membranes in the cavity of the abdomen, I saw no other way of relieving this patient but by laying aside the generally-received notions of dropsy, and ordered as follows:—first of all, a clyisma of a decoction of mallow leaves to be repeated until it produced an alvine excretion, a fomentation of mallow-leaves and poppy-heads to the abdomen, and the application of ten leeches to the anus, with a coffee-spoonful, (about two drams) of castor oil three or four times in the day, with a little chicken broth for nourishment and barley water for drink. This was the 15th of July. I saw her again on the 16th, she had passed a better night than she had done for two months; the leeches had effected a copious bleeding. She had a small fluid alvine evacuation after the second clyisma, it was of a dark colour, bordering on black, the quantity of urine



was rather increased, the pulse more distinct at the wrist; I may say it was something relieved, as I could count it without difficulty, it was 108. I desired her to continue the fomentation and the oleum ricini (castor oil). 17th, had passed a good night, had two alvine dejections, rather copious, very dark and much scybala, evacuated nearly a pint of urine, thirst more moderate, pulse still more dilated, it was 105, skin less hot but still dry, tongue still white but more moist; to continue her remedies as yesterday, and to take a draught, the basis of which was half an ounce of the solution of acetate of ammonia, alternately with the castor oil. 18th, much the same, ordered her a warm bath, (25 degrees of Réaumur's, about 90 of Fahrenheit's) and flannels steeped in the decoction of mallow leaves and poppy heads, wrung out dry and impregnated with a lotion composed of two-thirds of the solution of acetate of ammonia and one-third of alcohol, and applied hot to the abdomen. To continue her other remedies.



19th. Had passed a good night ; on coming out of the bath, took a cup of chicken broth, returned to bed, and slept for five or six hours without waking, found herself much relieved, pulse 96, had two alvine dejections, which were much of the same nature and colour as those previously described, the abdomen less tense and something less painful, the skin not so hot and something softer ; the quantity of urine evidently increased ; ordered the application of eight leeches to the anus, and to continue the other remedies.

20th. The leeches had taken away a good quantity of blood, but the strength of the patient was by no means diminished, on the contrary there was a general amendment, and the pulse 90.

21st to the 27th. Going on favourably, ordered her to repeat the bath, and continue the internal and external means prescribed.

29th. The alvine dejections which had been kept up to two or three a day, now began to resume a more natural colour and

general appearance, the urine augmenting daily in quantity and ameliorating in quality, the abdomen much sunk and the upper extremities much reduced, the skin temperate and soft, the pulse 80 and dilated, the tongue clean at the tip and on the sides. Ordered five grains of the *pilula hydrargyri*, or the blue pill, every night and morning, half an ounce of castor oil occasionally, when the bowels were not sufficiently open, and a warm bath twice or three times a week. This treatment was continued for a fortnight, when her mouth became sore, the pill was therefore suspended, and the bowels were kept open by taking occasionally three grains of the *extractum colocynthidis compositum* and as much soap, made up into a pill. When the mouth got better, which was in the course of nine or ten days, she resumed the use of the blue pill and took one every night only; from this time no other remedy was prescribed her, and after forty-five days residence in Toulouse, she returned home in a perfect state of convalescence: and on

leaving I desired her to be careful of the state of the bowels, and to live chiefly on plain boiled or roasted meat or poultry, plainly boiled vegetables and ripe fruit; which she followed regularly, and is now well, or at least was so in the month of June, 1820.

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### *Case of Hemiplegia.*

Mr. Kreutzer, a German landscape gardener, whose occupation is that of planning or laying out gentlemen's pleasure grounds, well known as such for fifty miles round the city of Toulouse. On the 12th of February, 1818, while at work on the estate of Mr. Dumergue, about four miles out of town, he was suddenly seized with what he termed *a defaillance*, (a swooning or fainting fit), said that he never lost his recollection, but he fell, and could no more recover his stand-



ing position ; he was surrounded by a number of workmen, whose labour he was directing, and who went to his immediate assistance ; he soon recovered from what he termed his defaillance, but he could not recover the use of his limbs ; the right arm and the whole of the right side were completely paralyzed, and he was carried in this state to his lodgings, about a quarter of a mile from the spot where he was taken ill. I was sent for, and saw him the same day ; his mouth was drawn aside, and his tongue so much paralyzed that it was with difficulty he could articulate so as to be understood, it was moreover much furred ; his skin was not hot, but dry and rough, his pulse feeble, not more than 60, yielding easily under the finger ; his countenance drawn, respiration laborious ; costive, and complaining of a heavy dull pain in the left side of his head. This man had been a very hard drinker, his favourite beverage was brandy, of which he had been known to drink a quart bottle in the day, but had latterly re-

trenched much of that quantity, supplying the deficiency with good wine, with which that country abounds ; I had brought about this change in his regimen, having attended him in the beginning of November preceding after he had laboured three weeks under an acute rheumatism, by which his strength had been much reduced, and which was far from being restored at the time of this attack ; he was sixty years old. I had recognized a considerable functional disturbance, and, as I thought, organic affection of this man's liver, when I saw him with a rheumatic complaint in the autumn ; this appeared more evident at present, the right hypochondrium fuller and more sensible to the feel than the left ; his countenance, as well as the conjunctive coats of the eyes, bore a yellow tinge.

I ordered him a clyisma with warm water and salt, to be repeated every half hour until it should produce a dejection, that his feet and legs, as high as the knees, should be put into a warm bath with mustard in it ;



and while this was doing to send a person to town to fetch a dozen leeches, ten of which were to be applied to the anus as soon as the clyisma should have produced the desired effect, and the next morning to take a gentle opening medicine composed of senna and Glauber salts ; I heard nothing of him on the 13th ; on the 14th he was brought to town, and I learnt that the means I had prescribed had been duly put in use, and had produced the different desired effects ; he spoke plainer, and his mouth appeared to be more approaching its natural position ; the pain of the left side of his head nearly gone ; his pulse still slow, but certainly stronger ; his breathing much relieved. I ordered him to have a basin of good broth every four or five hours, with a couple of table spoonsful of wine after each ; to drink weak wine and water when thirsty, and to repeat the opening draught the next morning. 16th. Took his draught yesterday, which produced three good dejections of a dark green colour, had passed a good night,



and this morning appeared cheerful, could move the right arm a little, his tongue was more free and his mouth more straight, the pain of his head not quite gone, his pulse 60, not weaker. Ordered eight leeches to be applied to the anus this evening, and one of the following pills to be taken night and morning :

R Extracti colocynthidis comp. scrupulas duas.

Saponis albi scrupulam unam.

Olei menthæ ess : guttas quatuor.

Divide in pilulas duodecim.

17th. The leeches produced a moderate bleeding ; had had one copious stool, relished his broth, and wished to be indulged with something to eat ; I permitted him a little bread in the broth—moves his arm much better to day, can move his leg a little, his mouth nearly straight, and his tongue much relieved, pain of the head gone, pulse considerably stronger, still 60.

20th. Nothing remarkable during the two last days, his bowels were kept regu-

larly open, a general amendment ; allowed him a little roast fowl or boiled mutton for his dinner every day, with wine and water for his drink ; ordered him five grains of the pilula hydrargyri, (blue pill) night and morning, which he continued for three weeks without intermission, and without the addition of either stimuli, antispasmodics, or tonics.

On the 26th he was able to walk round the room with the help of a man who waited on him during his illness, and in three weeks from the day he was seized with the attack he was able to walk out with a little assistance, as he had a constant propensity to move in a circular direction, always turning to the right, with his head inclined that way also, but he got the better of all these complaints in the course of the Spring.

I recommended him the Summer following the use of the saline waters of Bagneres de Bigorre with that of the warm sulphureous baths. I have not seen him more than once since his recovery, but have frequently

heard of him and know that he has been well ever since.

The leading symptoms in this case were those of hemiplegia, which is classed in the *Nosologia Methodica* in the order of nervous diseases ; but here it is very evident that the irritable condition of the liver was the predisposing cause ; the stimulus which induced an irregular distribution of the nervous energy, and consequently a superabundant afflux of blood to the head, thereby destroying the equilibrium in the circulation, proceeded from the digestive organs. The action of the heart and arteries did not appear augmented, but, on the contrary, oppressed, for after each evacuation it seemed to acquire additional force. Had the doctrine of debility been acted upon in this case, and stimulants and cordials given, what would have become of the patient ? or, on the other hand, had the depleting and evacuating plan been followed by general bleeding and strong purgatives, could we reasonably suppose that the strength of the



patient would have borne such a treatment ? knowing him as I did, I was of opinion that general bleeding was inadmissible under the existing circumstances, and therefore recommended, leeches, with a view of depleting those vessels whose contents, united with those of many others, feed the vena portarum. The result answered my expectations.

It is not necessary to tell my medical readers what an important part the vena portarum performs in the liver, but as some of the more liberal minded members of the profession may be disposed to put to trial this method of relieving suffering humanity ; and as it is not improbable that the patient himself, or some of his relations or friends about him should object to the application of leeches to the part here specified ; for the sake of such persons I will furnish a few ideas on the utility and importance of this vessel and of its relation with those that pass the very spot where leeches are recommended to be applied.

The name of *vena portarum* is given to a particular venous system contained in the cavity of the abdomen, and is formed from the union of the different veins that carry the blood from the intestinal tube and all the other organs contained in this cavity into the liver, and furnishes that organ with the pabulum, or, if I may be allowed the expression, the materials for the formation of the bile or gall; the circulation through this vessel or collection of vessels is slower than it is through any other part of the venous system, and congestion or an overloading of the various branches often takes place, producing a varix or enlargement of the vessel itself, this disorder may prevail in any portion of its continuity from the hæmorrhoidal veins to the substance or membranous appendages of the liver or any other of the abdominal viscera. The viscus thus loaded, must of course suffer, its function becomes laborious and imperfect, and other functions depending thereon become disturbed, so that a general disorder ensues.

What is done then by applying leeches to the anus? It is creating artificial piles; it is disgorging those congregated conduits; it is really making Medicine the hand-maid of Nature.

I have had numerous occasions of observing the advantage of this practice in nervous and bilious complaints, which in nineteen cases out of twenty are but the varied effect of disturbed function or organic affection of one or more of the chylopoiétic organs, producing symptoms analagous to the function, or relative to the sensibility of the particular organ or organs affected.

I have seen a number of hypochondriac and melancholic complaints, after having all the changes of stimuli, antispasmodics, cordials and tonics rung upon them, without effect, give way to the repeated depletions of the abdominal venous system, united with clyisma, gentle aperient or drastic purgatives in small quantities, or the blue pill, so as to stimulate but not to irritate the intestinal canal, and the use of warm sulphureous



baths, natural or artificial, to excite the action of the skin. These united means have seldom failed to remove those multiform complaints, and their occasional employ has warded off the recurrence of such truly calamitous maladies. To such as could afford the expense and fatigue of travelling to finish the medical treatment, I have always prescribed the use of saline aperient waters, taken at the source in proper seasons.

I have been successful in applying these means to complaints of the urinary passages, attendant on old age, from the dilated or varicous state of the veins in the neck of the bladder and prostate gland.

In the course of my practice I have had several cases of mania under my care, and have always found the practice here recommended the most successful, and I believe I may add, without infringing on the laws of strict physiology, the most reasonable. The following case, which I have selected from several others, will serve to corroborate this assertion.

Mrs. S———n, a very respectable pious woman, æt. 54, wife of a gold and silver smith in extensive business at Toulouse, a woman of an active disposition, taking a leading part in the commercial affairs of the house, a very temperate and regular liver ; she passed through the revolution without suffering much in her health, though often exposed to great risk in her person and property. When she heard of the return of the late Emperor of the French from the Island of Elba, and the subsequent successes he met with in his march to Paris, and ultimately his triumphant entry into the capital, the poor woman was panic struck, anticipating the return of all the horrors of the revolution ; she became sad, mournful, refusing food, sleepless, incoherent in her reasoning and language ; this was suffered to go on for several days, the complaint increasing daily. On the 5th of April I was sent for, and found her, whom I had known to be a perfectly mild, gentle, and harmless woman, menacing and terrifying every body about

her, tearing her clothes, breaking every thing that came in her way, and suffering none of her family and friends to approach her, all running to corners for fear of her ; at last they were under the necessity of employing two strong men to hold her. I saw her in this state ; it was impossible to feel her pulse, or examine any other symptom but that of her countenance, which was furious, her eyes glistening with rage ; I had her confined in a less troublesome manner than that of holding her by main force. I gave the plan or form of a straight waistcoat as well as I was able to carry it in my mind, which, though not so complete as those made by workmen who make that a trade, answered the purpose very well.

Being thus confined to her bed, I was able to approach her, and to investigate her situation in a more deliberate manner ; I felt her pulse, which was neither frequent nor preternaturally developed, the skin was not hot but dry, I may say that she was without fever ; she would drink frequently of cold



water only, she was so cunning on this point that she would see the cruche or pitcher in which it is customary at Toulouse to keep filtered water for drinking. It was impossible to obtain a sight of her tongue. I observed the tunicæ conjunctivæ much injected with red globules, her bowels had not acted for some time, no one could tell for how many days. It was impossible to make her swallow any thing but water, which, as I observed before, she took with such cunning precaution that nothing could be introduced into it without her observation. It was with much difficulty a clyisma was thrown up, which was returned hardly discoloured, several others were repeated with no better effect, but their use was persisted in notwithstanding. I also ordered the powder of colycinth to be rubbed on the pit of the stomach, moistened with the saliva of one of the family, according to “la methode ytraleptique” of Doctor Chrestien of Montpellier. These means were employed the whole of the 6th. The water of the clysmas

was returned turbid, but no other sign of stercoral matter. The 7th, eight leeches were applied to the anus, the friction was continued, but the clysmas were suspended. The 8th, about fifteen hours after the application of the leeches, she had one alvine dejection, the quantity was moderate, as to the colour, it was so mixed with the blood produced by the leeches, which was contained in the same linen, that no particular notice was taken of it. 9th, continued the frictions and resumed the clysmas, had two copious dejections in the course of the day. 10th, slept at two intervals during the night, the first one hour, the second about three quarters, appeared more tranquil this morning, she was prevailed upon to take a little broth without bread, I was enabled to feel and count her pulse for the first time, it was 65, and rather hard, but small; skin still dry and not hot, had one alvine evacuation; ordered eight more leeches to the anus and to continue the frictions.

11th. The leeches had produced a copious



bleeding, slept full two hours at once, had one more alvine evacuation ; had several, but short, lucid intervals, in the course of the day, during one of which she was prevailed on to take five grains of the extractum coly-cynthidis compositum in a pill, which was repeated twice more in the course of the day and night, and she took broth without much difficulty several times. 12th, had several stools, her lucid intervals were longer, in one of which she requested to have the straight jacket taken off, which was complied with ; but we were obliged to threaten her with it again very often, though it was no more used ; from this time she had sufficient lucid intervals every day to enable us to get her to take nourishment and medicine, the frictions were left off, the clysmas also, and she took a sufficient quantity of the cathartic extract to keep her bowels freely open, and two or three draughts of the camphor mixture ; she continued gradually mending, with little or no variation in the medical treatment ; she was allowed a little roasted chicken or boiled



mutton, with half a glass of wine after her dinner, with weak wine and water with her food ; no remarkable occurrence intervened ; I saw her regularly every day until the 17th of May, when she appeared sufficiently recovered ; I sent her to the country, where she remained a month, and returned, “ *mens sana in corpore sano.*” Mrs. S———n perfectly recovered, and has remained without the slightest return of that or any other complaint ever since.

I shall leave this case to the reflection of my readers, without offering any other remark than saying, that although there appeared here no other sign of organic affection of the digestive apparatus; the functional disorder of the intestinal canal, and the disturbed state of the general or united functions of the other chylopoiëtic organs were great, and that on removing this determining cause, the regular distribution of the nervous energy was restored, and the equilibrium in the circulation established, before any lesion of the encephalic organs took place.

I shall next submit a case of chronic inflammation of the mucous membrane of the stomach propagated or extended to the mucous membrane of the thorax, constituting a catarrhal affection of the two cavities.

I saw Madame S———l in the month of February, 1819, a very interesting married lady, 21 years of age, she had been ailing for several months, was much emaciated, her appetite nearly gone, a continual diarrhea, never less than two or three loose motions every day, tongue red and dry, a hollow troublesome cough, the sputum mucous, sometimes puriform and abundant, skin hot and dry, pulse 90, and small; she was considered by the family to be in a pulmonary consumption, and this was also the opinion of the medical attendants who had had the care of her hitherto. It was the 23d of February I ordered ipecacuanha in small doses with opium, an emulsion with tincture digitalis, a light diet, and barley water with gum for common drink; the cough was a little relieved during the effect of the opium

and no longer, every other symptom continued the same except the diarrhea, which was rather aggravated. 27th. I ordered *mistura cretæ* with *tinctura catechu* and *tinctura opii*, to be taken occasionally, “*post sedes*,” and to continue the other remedies. 1st March. The diarrhea no better, every other symptom rather worse, skin considerably hotter, pulse 100. I had seen her now every day for a week, and had the mortification to observe that every thing I had ordered her was without any good effect, on the contrary, she was growing worse daily. I had now an opportunity of obtaining a more exact history of the commencement and progress of the complaint, which led me to form a different pathological idea of it, as well as different therapeutic views. A very near relation informed me that about six months ago she was at a ball, and while very warm with dancing, she drank a large glassful of cold orgeat, and soon after was taken with a cold shivering; she experienced an illness of about ten days, and got about



again by the means that were then prescribed for her, but never was well from that day, never free from cough or diarrhea, had a constant want of appetite, and frequent nausea, especially if she ate any thing difficult of digestion, her breathing much oppressed if she attempted to walk a little faster than ordinary, or when she mounted a rising ground or went up stairs; expectoration always abundant. This relation led me to consider this a case of chronic inflammation of the mucous coat of the stomach, propagated or extended to the mucous membrane of the thorax. Under this consideration I prescribed two grains of the “pulvis antimonialis” every eight hours, with a saline draught in the state of effervescence immediately after each dose of the powder, and four leeches to be applied to the anus; chicken broth, thin chocolate, or the feculum of potatoes boiled into the consistence of thin cream and sweetened to her palate, to be her only nourishment; and barley water with gum arabic, with sugar

and lemon-juice sufficient to make it agreeable, to be her common drink. 3d. The leeches had acted very well and the patient appeared more calm, the cough rather less troublesome, and the bowels more quiet. To continue every thing as ordered on the 1st, and to take a warm bath the next morning. 4th. Found herself very comfortable in the bath, and fancied it had done her good. She seemed more calm in general, and her pulse was brought down to 80 ; to continue the remedies and the regimen, and the next morning to repeat the application of leeches to the anus. 5th. Much the same as yesterday. 6th. The leeches had produced a good bleeding yesterday, the patient had passed a good night, had had several intervals of refreshing sleep, the cough less violent and not near so frequent, expectoration easy and of a more favourable appearance, the skin of a more natural feel, the pulse 75. Ordered to continue the remedies and to repeat the warm bath the next morning. 8th. Every thing



going on as well as I could wish ; the treatment continued. 10th, the leeches were applied again. 11th, the usual good effects produced from the leeches, the patient much better in every respect, the pulse was now reduced to 70, every thing continued, and the warm bath, which was always taken at 95 of Farenheit, was continued every other morning. 15th, bowels quiet, no more than one dejection in the course of twenty-four hours, cough nearly well, expectoration almost terminated, pulse reduced to its natural standard, the skin had acquired that soft pleasant feel inseparable from good health, her tongue having lost its morbid redness, had acquired its natural colour, and the patient eagerly requested to eat ; she was permitted to take a little roasted chicken or roasted or boiled mutton once a day, with plainly dressed vegetables, and wine and water to drink. The antimonial powder and saline draughts were continued twice a day, the warm bath every other day, and she was put on the use of asses' milk. The sto-



mach bore this regimen very well, her cough quite disappeared in the course of a month from the commencement of this plan, and all remedies were suppressed excepting the asses' milk and the warm baths, the latter were left off the beginning of April and the asses' milk the beginning of May; the latter end of the month she went to her country residence, from whence she went in July to the baths of Ussat, very highly and indeed justly esteemed throughout the South of France for their salubrity. The patient took these baths every day for three weeks and returned in perfect health, and remained so for several months; but, unfortunately, in the month of January, 1820, from cold or indigestion, or, more probably, both, she had a relapse of her former complaint; she was brought to Toulouse to be under my care; I prescribed the same means as I had done the preceding year, and had the satisfaction to observe that they were productive of the same happy result. She soon reco-

vered, and I left her perfectly well in the month of June.

This is not the first time that I have met with chronic inflammation of the mucous membrane of the stomach propagated to the mucous membrane of the chest, and “*vice versa* ;” and I believe few Pathologists will deny this assertion ; and as to the serous membrane of the abdomen, the peritoneum, the care and attention paid for some time past, both in England and on the Continent, to pathological anatomy, has proved unequivocally that acute and chronic inflammations and degenerations of the serous membrane of one great cavity, have been found extended to that of the other two ; peritonites, pleurisie and arachnoiditis, have often been found co-existent, on post mortem inspection, and disorganization of the membrane when it occurs in one of the cavities frequently found consecutive in the others.—*Quere*, does not this fact throw great light upon the doctrine of sympathy ? does it not prove the existence of similar disorders in different

cavities to be produced by similarity of tissues? Hydrocephelus internus, considered in this manner, would probably lead to a more successful mode of treatment than many of those lately contended for by some highly respectable medical characters. The love of truth and the love of my fellow creatures oblige me to say, that by considering it in this light I have been generally successful in the treatment of it.

Chronic inflammation of the abdominal membranes occurs more frequently than we are aware of; very often no pathognomic symptom appears which may serve to detect its presence until it is too late to remedy it. It is common to consider the more early symptoms as hypochondriac or nervous disorders, and diffusible stimuli antispasmodics, and tonics, are prescribed with a view to relieve the symptoms, but which never fail to augment the cause, and the irritation, thus artificially kept up, leads to a disorganization; whereas if a contrary plan had been adopted, and that we could be con-



vinced of one great truth, that is, that all chronic phlegmasiæ tend to a resolution as long as there is no disorganization in the part affected, and that every organic movement raised above its natural standard is but of a limited duration, unless prolonged by some local or general cause of irritation, which must inevitably end in disorganization. Moreover, we are more inclined to consider this condition of organic disorder as a nervous affection, because it most frequently happens to subjects already enfeebled by previous maladies, by long residence in hot climates, by long continued abuse of spirituous or fermented liquors, or by a sedentary occupation and mental exertion. Chronic inflammation of the peritoneum exists often without fever, without tumefaction, without pain, except upon a strong lateral pressure, when its presence is generally detected by a pain produced in the epigastric region; this is probably one of the most certain means of discovering both acute and chronic inflammation of the serous

membrane. It is also accompanied with a coldness of the skin and generally a constant sense of shivering, and always with obstinate costiveness. When the complaint remains unsubdued, sometimes a gradual and at other times a sudden meteorism takes place and produces tympanites or dropsy, or both. When the mucous membrane of the intestinal tube is the seat of chronic inflammation, a looseness of the bowels takes place, with flatulence, cholic, and borborigmus, the disorganization of this membrane is generally effected by suppuration and ulceration ; so that chronic as well as acute inflammation, unless a resolution is brought about before a commencement of disorganization takes place, are productive of the same effect, the destruction of the membrane or parenchyma affected, and consequently of the individual. The acute affection produces that catastrophe by a rapid march, the chronic in a more slow, but not less certain manner. The indications of cure are the same in the one as in the other of these

modifications of inflammation, but the means of fulfilling those indications are somewhat different.

The first indication is to unload the oppressed organ.

The second to prevent the recurrence of the oppression.

In acute inflammation, where increased vascular action and an increased development of caloric take place in a subject strong and heretofore in good health, general and local bleeding, with what is generally understood as the antiphlogistic treatment are unquestionably the best means that can be employed, and most commonly, if employed in time, and in proportion to the degree of disorder and the strength of the patient, will be sufficient to fulfil the one and the other of the above indications. But in chronic inflammation, which, as was before observed, most commonly happens to subjects already enfeebled, and when by long sufferance from the want of the concurrent function of the oppressed organ to contribute



towards the general function of assimilation and nutrition, the patient is become still more enfeebled and emaciated, our means of fulfilling the one and the other of the above indications become very limited.

The first indication, that of unloading the oppressed organ, can only be attempted by partial extraction of blood, performed as near the situation of the disorder as our anatomical knowledge may point out, as most approaching to local bleeding, or what would be still better, by the depletion of a vessel or ramification of vessels, which, in part, feeds, or at least is in direct connexion with, the organ affected ; what has been already said on the abdominal venous system need not be repeated here, I shall only beg my readers to examine the few cases before mentioned with impartiality, and judge them physiologically and pathologically, and say whether the application of leeches to the anus does not hold out a more rational means of depleting the abdominal venous system as well as all and every one of

those organs generally denominated the peritoneal viscera ; I have often recommended leeches to the surface of the abdomen and cupping to the hypochondria, and must declare that I have not found such applications to answer the desired effect, equal to the extraction of blood at the anus. In my present practice I employ the leeches to the abdomen or the cupping as accessories to the depletion of the abdominal venous system, a practice I never omit to combine with general bleeding in acute inflammation of the abdominal viscera. Sanguine depletions should always be accompanied with appropriate internal remedies ; and I consider as highly useful in such cases the pulvis antimonialis in small quantities, according to the strength of the patient ; and the solution of acetate of ammonia ; they produce the double effect of diminishing vascular action, and, at the same time, increase the action of the skin. Injections of warm water, frequently thrown up into the rectum, should never be omitted, they have a double advantage, they not

only evacuate the large intestines of their accumulated load, which must necessarily add to the irritation of the suffering viscus, but they powerfully contribute to calm that irritation; they act as so many fomentations, they are literally local baths.

The second indication to prevent the recurrence of the oppression of the organ, consists, in the first place, in calming local irritation, by removing every cause of excitement, among which there exists none greater nor more common than the distension of the colon by the accumulation of hardened fœces, and this cannot be removed by a more certain or a more safe method than by repeated injections of warm water, and warm water only; so that this practice, which I am sorry to say is too much neglected in this country, is a powerful accessory means of fulfilling both the first and second indications of cure in inflammation of those organs, on the function of which life depends. The next and very essential means of fulfilling the second indication is to excite the function of other



organs whose action has been greatly weakened or nearly suspended by the too great excitement of the suffering organ, and thus diminish the accumulation of blood in it, by stimulating the capillaries of other tissues to attract or recal their lost nervous energy, and their due portion of the circulating fluid, and thereby re-establish the equilibrium in the distribution of the blood; this, and this only, appears to me, both in theory and practice, the most rational means of restoring and keeping up the proper balance in the circulation, and consequently the best means of preventing the recurrence of a too great accumulation of blood in any one viscus or system of viscera.

The organ whose action is the most diminished by the undue afflux of blood to any of the thoracic or abdominal viscera is the skin; whenever the action of the external perspirable surface is morbidly diminished or increased, that of the internal perspirable surface is in an inverse ratio, and *vice versa*; there is a reciprocity or balance between the

natural functions of the skin and those of internal secreting organs, whether membranous or parenchymous, and whenever that balance is broken, that harmony which constitutes health is troubled; this is what is denominated functional disorder, and if not removed by re-establishing that balance which has been broken, before the particular viscus whose action is become morbidly increased suffers in its substance or texture, it constitutes organic disease.

I have met with several persons in the course of my practice, who had long inhabited hot climates, and who, on leaving those climates, were not aware of any disorder of the liver; they had suffered occasionally some slight bilious complaints; and when they came to a cold or temperate climate, where the skin had no longer so strong a stimulus to excite its action, its functions becoming morbidly diminished, the liver became evidently disordered and greatly increased in its volume.

It is then of the highest importance to



maintain the natural action of the skin, and to stimulate that action when diminished by the two great afflux of blood, and consequently a concentration of caloric in any of the internal organs.

The warm bath offers the greatest advantage in such a case ; it calms local and general irritation, and greatly contributes to the re-establishment of the equilibrium in the circulation of the blood, as well as the equal distribution of the nervous energy ; as an inflamed organ retains a superabundant quantity of blood by means of irritation only. For after death, which destroys all irritation and spasms, no trace of inflammation remains, except where it has been so intense as to occasion a transudation of blood through the parietes of the capillaries in the area of organic tissues ; except in such a modification, the blood, returning to the large vessels, leaves not a trace of inflammation ; let it be understood that simple inflammation is meant, where neither suppuration nor gangrene have taken place.



The warm bath contributes also to disengage caloric, and at the same time, stimulating the cutaneous organ, reanimates the action of its numberless vessels, so that they attract and retain their lost portion of the circulating fluid, and consequently prevent the recurrence of a too great accumulation in the disordered, and probably enfeebled organ. Notwithstanding the highly improved state of science, we have no exact means of ascertaining how living bodies resist the introduction of a higher degree of heat than that they are naturally endowed with, yet we are authorized to consider cutaneous evaporation as the most powerful agent nature makes use of to disengage herself of an excess of caloric, as well as to maintain its equal distribution.

The skin is an organ of much importance in the animal economy, it is placed between two secreting membranes, whose functions serve to mollify and lubricate the varied fibres that form its tissue, as well as the numberless nervous papillæ or apertures of

nerves that present themselves on its surface ; these two membranes continually secrete, the one an oily and the other a mucilaginous substance. The skin is moreover furnished with an exterior defensive covering, perfectly inorganic, insensible, and transparent, the cuticle or scarf skin, which serves to prevent the desiccation of the skin by the atmospheric air. It is also a barrier to prevent the too easy absorption of heterogeneous substances ; it is distributed in flakes or scales, the one half covering the other, so as to leave sufficient interstices for the issue of cutaneous exhalation or perspiration.

It has been observed that the action of the skin is greatly diminished or nearly suspended in chronic internal inflammation, but the action or secretion of its sheathing membranes, or, strictly speaking, the membrane and fine web or net work forming its sheath, is not interrupted ; this oleo mucilaginous substance, the produce of that double secretion, for want of the proportionate quantity of the cutaneous exhalation to at-

tenuate and volatilize its more tenaceous substance, is no longer susceptible of evaporation, clogs the scaly interstices of the scarf skin, and occasions that roughness and dryness of the surface which always prevails in those long standing complaints which occasion a diminution of the vital energy of the true skin.

These are cases that require more than mere warm water : it is in such cases that warm mineral baths are particularly serviceable, I mean those thermal waters impregnated with saline substances, with terreous or alkaline basis, whose action, combined with the warmth of the water, operates on the surface with a double force ; they remove those obstacles to the free issue of the functional production or secretion of the skin, and at the same time restore the vital energy of that organ.

I do not think that the use of warm mineral baths is sufficiently appreciated in England, at least it does not appear that English Physicians attach so much import-



ance to that powerful remedy as their neighbours on the Continent do. Whether this arises from the want of a variety of mineral waters in this kingdom, of a sufficient degree of heat to stimulate the exhaling and absorbing vessels of the skin, or whether there are so few of those waters whose internal use as an aperient or alterative, can be combined with the warm bath, a combination, in my opinion, of the greatest importance in the treatment of disorders as well as chronic affections of the digestive organs and other viscera ; or from what other cause it is that this salutary method of treatment is so seldom recommended I cannot pretend to say. One thing I know, and that is, that it does not arise from a want of medical science in the country ; none can boast of more proficients in general and medical learning than the united kingdom of Great Britain.

The avowed object of this work is to communicate some useful means employed on the Continent in the treatment of chronic affections of the digestive organs, which

means are not generally employed in English practice, but, by being combined with it, have, according to my idea, been rendered more efficacious. Some of those means have been explained by the cases before mentioned ; how far they may be considered useful or worthy the attention of English medical men is not for me to determine, but I will venture to say that I undertook to submit them to the Public under the firm conviction of their general usefulness. In Medicine we are apt to expect too much from one remedy or one mode of treatment, but the experienced Physician, like the experienced General, will combine every means in his power to defeat the enemy. English medicine may acquire some advantage by combining the means here recommended with its more powerful general practice ; and Continental Medicine may be much improved by combining English practice with that it has already adopted.

I do not intend to give a general detail of Continental practice, I only wish to point



out some part of it, which I conceive would be useful if combined with English practice. I have dwelt, some may say too long, on the advantage of depleting the abdominal venous system by the application of leeches to the anus. I have insisted on the usefulness of clysmas. I shall conclude by recommending the combination of warm mineral baths, with the internal use of mineral waters in simple functional disorder of the digestive organs, and by pointing out the necessity of employing that combined treatment to consolidate the cure of chronic affections of any of those organs, after the oppression occasioned by the too great accumulation of blood in that organ, shall have been relieved by depleting the abdominal venous system, and other means already mentioned. I shall then give an account of the most celebrated mineral waters on the Continent, and compare their analysis with that of the Cheltenham and Leamington Waters ; and lastly, propose the composition of artificial mineral warm baths at Cheltenham, which, in my



humble opinion, would render that delightful spot one of the most salutary as well as most agreeable watering places in Europe.

I shall not enter into any discussion on a pamphlet published a few months past, apparently with a view to depreciate the Cheltenham Waters, or to raise the reputation of one of the establishments by destroying that of others ; I know but little of the author, but that little makes me regret that a Physician, in every other respect so estimable as Dr. Adam Neale, should have committed his moral and professional character by asserting such things as he was not able to prove ; to say the least, we may, without fear of contradiction, hint that he was too precipitate in his assertions ; had he taken the pains to analyse those waters himself, or had waited the publication of Dr. Scudamore's excellent analysis of them, very lately published, it is more than probable that he never would have sent such a pamphlet before the Public. Let it then be buried in oblivion.

In the beginning of last August I visited upwards of thirty of the mineral springs, or wells, in company with R. Erskine, Esq., Surgeon to H. M. 22d Regiment of Foot, then at Cheltenham for the benefit of his health; our object was to ascertain whether those wells produced a sufficiently abundant quantity of water for the use of the Public; and if not, whether any, and what were the means, artificially employed to supply the deficiency.

The result was, that we found abundance of water in those wells prepared in Nature's vast alembic, without the aid or concurrence of Man!!! It is very true that at the different pump-rooms, salts, or saline water in a state of concentration, are openly and publicly added to the natural saline waters, a practice, were it harmless, I should have taken no notice of, but as I conceive it to be hurtful, I must condemn it. Yet this is not to be construed as a deficiency in the quality of the Cheltenham Waters, nor be charged to the account of the proprietors of

the different pump-rooms, but to that of those who prescribe it, or if they do not prescribe it, at least sanction it by their silence.

Cheltenham Waters want no addition of salts nor of concentrated waters to render them more active ; they are naturally more impregnated than most of the celebrated saline waters in Europe are, as will be readily perceived by perusing the analysis of some of the most noted of them which will be hereafter inserted. Besides, it is the unanimous opinion of the most learned Physicians and the most celebrated Chemists of the present day, that natural mineral waters owe much of their efficacy to the extreme diluted state in which they hold their component parts in solution.

Let any one dissolve an ounce of Glauber or Epsom salts in a small quantity of water, and drink it, it will irritate and greatly disturb the functions of the stomach and intestines but will hardly purge him. Let the same person a few days after, or a few days



before, dissolve the same quantity of either of those salts in twice the quantity of water, he will find its purgative quality increased and the irritation much lessened; and in proportion as salts are diluted or dissolved in a larger quantity of water, their action on the intestinal tube will be relative; this has been tried often, and the truth may be ascertained every day by any one, however unlearned.

Sea water, when diluted with common water, becomes more purgative than when taken in an undiluted state.

Chalybeate waters in general hold but a very small portion of iron in dissolution, but it is a fact universally acknowledged, that that small portion spread over the surface of the stomach in its very dilute state, produces a greater effect on the constitution than a much larger quantity of oxide of iron taken in a concentrated form would produce.

Among other alterative remedies, tartarized antimony, or emetic tartar, is much in use in France, it is given in a very diluted

state ; one grain is dissolved in eight common wine bottles of water, and the patient is recommended to drink one bottle in the course of twenty-four hours, and to continue it for weeks or months ; it is found useful in incipient affections of the chest ; this practice was introduced by Dr. Lantois, of the faculty of Montpellier residing in Paris, in a thick octavo volume, with numbers of cases I have introduced this article with a view to corroborate the general opinion, that alteratives, particularly those of a saline nature, are more advantageously administered in a diluted state than in a more concentrated form.

Cheltenham waters come under this denomination, they are a saline alterative remedy ; their purgative quality should be considered as secondary, or at most but accessory. I feel much satisfaction that I am borne out in this manner of estimating the real medical virtues of those waters, not only by my own observations on similar waters during several years practice on the Continent, but that those observations are

corroborated by Dr. Scudamore's remarks, accompanying his recent analysis of several of the mineral waters of this country. That of the Cheltenham waters, as they are furnished at the different pump-rooms, I consider as a just, fair, and impartial account of the positive and relative proportions of their component parts. There is but a mere shade of difference between each of the wells, some are a little more impregnated with certain salts than others, but that difference, especially between the Old and Montpelier Wells, is trifling indeed. Moreover, I will maintain that the weakest of the Cheltenham alterative aperient waters, for so they ought to be denominated, is sufficiently strong to fulfil all the indications a rational and experienced Physician can require. I consider the muriates and the carbonates to be the most valuable of the component parts of these waters, but I must observe that their value is enhanced by the small proportion of sulphates that enter into combination with them; the latter obviate



the irritating effect of the former by keeping the bowels gently open, so that the secretions of those organs, stimulated by the carbonates and muriates, are proportionally excreted by their combination with the sulphates. Let it be understood, once for all, that by keeping the bowels gently open I do not mean purging.

All the muriates, from the muriate of gold of Montpellier, to the muriates of soda, of magnesia, and of lime, found in mineral waters, are highly alterative.

It is an axiom in Medicine that alteratives produce the best effect when administered in small doses ; they do no good when, either by being given in an increased dose, or by being combined with other substances, they are hurried off by the first passages ; they should be suffered to act on the absorbents, and ultimately be carried off by the other different emunctories.

Muriates and carbonates, given in large doses, become purgative, but then they produce that effect by irritating, and always

bring on debility. The sub-muriate of mercury may make an exception to this general rule, yet its use as a purgative requires to be confined to certain cases, and to be directed by the experienced Physician. It is more generally employed as an alterative.

Moreover, the continued use of all saline purgatives is known to induce debility, whereas drastic medicines, even elaterium given in small doses, so as to stimulate but not irritate the large intestines, have been found highly beneficial in removing complaints, depending on disordered functions of the digestive organs in general, and on that of the large intestines in particular.

Dr. Saunders, in his preface to the third edition of his learned Treatise on the Structure, Economy, and Diseases of the Liver, observes that “in calculating the number of  
“ persons and the variety of disorders among  
“ the invalids at Cheltenham, he thinks he  
“ may fairly conclude that one-third of the  
“ whole was benefited—one-third derived  
“ no advantage, and another third was evi-

“dently hurt by persevering in the purging  
“plan. Among the last cases, symptoms  
“of languor, flatulency, thirst, and debili-  
“tated digestion, were induced or much in-  
“creased.” This opinion of Dr. Saunders  
does not, according to my manner of esti-  
mating it, lessen the intrinsic value of the  
Cheltenham waters ; on the contrary, it cor-  
roborates the generally-received opinion that  
they are an active and a powerful remedy.  
The fault is in the manner and the time  
they are prescribed.

The idea of their being a natural and simple remedy throws many a person off his guard, and instead of consulting a Physician before he begins, and during the use of them, takes them indiscriminately, whether his complaint comes under the denomination of those they are calculated to relieve or not, or if of that denomination, whether the disorder has not already made such a progress as to forbid their use altogether, or at least until some previous means shall have been employed to render it admissible.



Bark, opium, and many others of the most powerful remedies contained in our *materia medica* may be called natural, and even more simple remedies than mineral waters. Yet how many have been victims to their improper use! The better a remedy is when judiciously prescribed, the more dangerous it becomes when injudiciously administered. I have already mentioned the danger of prescribing for names or symptoms of diseases, as I have also the disadvantage of expecting too much from any one remedy. It is the prudent combination of various means, consistent with the various stages and progress of disease, and the age and constitution of the patient that constitutes the Physician's secret.

The mistaken idea that mineral waters are beneficial in chronic affections of the digestive organs only in proportion as they act on the intestinal canal, has been productive of much mischief; it is to this mistake the pernicious practice adopted at all the pump-rooms at Cheltenham is to be attributed; I

allude to the adding concentrated Cheltenham waters to those in their natural state ; if either of the sulphates, I mean Epsom or Glauber salts, or the more active sulphate of potass, (the salt of many virtues of the ancients) were added to the natural Cheltenham waters, in a small quantity, every other day for two or three times at the commencement of a course of these waters, it might be admitted, under the idea of clearing the first passages of sordes, and prepare the stomach and the other chylopoietic organs to digest and elaborate this valuable natural remedy, according to their own natural law ; but even that indication would be more efficaciously fulfilled by a few small doses of senna, with manna, rhubarb, or jalap, or any of the other more drastic medicines, given only in such doses as would stimulate the large intestines to evacuate their contents in a substantial, rather than a fluid state.

The concentrated waters contain the muriates, the carbonates, and the sulphates in such a state of concentration, that it is im-

possible it should not induce irritation, and consequently debility in organs where the one or the other did not exist, and increase them in organs where they already existed. Hence flushings, headaches, giddiness, languor, thirst, flatulency, and all the other symptoms of disordered and debilitated digestion.

To the general reader it may appear strange that I should condemn the practice of adding the concentrated water, and not disapprove of adding the salts, when every body knows that the salts are obtained by concentrating the natural Cheltenham waters; this is easily explained; the concentrated water is an evaporation of the mineral waters carried on to a certain degree, but something below the point of crystallization, so that all the component parts of the natural mineral waters, the gaseous parts only excepted, are suspended in only a sufficient quantity of water to retain them in a soluble state, and consequently prevent their chemical separation, whereas the salts are obtained by evaporating the waters to the crys-



tallizing point. They are then put into vats or coolers, when the different sorts of salts, according to the different acids and bases that enter into their combination, are separated by what Chemists term priority of crystallization; the less soluble forming the first salts, the more soluble remain in a state of solution, which is called the mother waters; this liquor is further evaporated, until it is brought again into such a state of concentration as will suffer the next less soluble salt to crystallize. Sometimes different salts will be separated by the same degree of concentration of the waters; that depends on the degree of coldness of the liquor in the crystallizing vat, or, more technically speaking, on the presence or absence of caloric; the less soluble salt will begin to form before the liquor is quite cold, the more soluble requires a greater privation of caloric to form its crystals.

The late Mr. Thompson established a very convenient laboratory at a little distance from the different wells, where he

united the contents of them all, except what was drank at the pump-room. By the process above described, or at least by following the same principle, he obtained several sorts of salts, which continue to be manufactured and sold at the above laboratory, *viz.*

I. Crystallized alkaline sulphates.

II. Ditto effloresced and ground to an impalpable powder for hot climates.

III. Magnesian sulphate in a state of efflorescence.

IV. A murio-sulphate of magnesia and iron in brown crystals.

V. Sub-carbonate of magnesia, which is also calcined at the laboratory and sold in its state of calcination.

As Messrs. Brande and Parke, in their Treatise on the analysis of these salts and the waters of the Montpelier Wells say,—

“ It will be observed that in preparing these  
 “ salts for sale, there is such a separation  
 “ of the various principles contained in the  
 “ original waters, that not one of them is  
 “ similar to the water drank at the Spa, &c.

“ From these considerations we have judged  
“ it advisable to recommend Mr. Thompson  
“ to fill one of the salt pans with water from  
“ one of the magnesian wells, and having  
“ evaporated the aqueous part, and obtained  
“ all the solid matter contained in it, to  
“ grind these mixed chalybeated salts to-  
“ gether, and offer them for sale under the  
“ name of the Original combined Chelten-  
“ ham Salts. We have advised this, be-  
“ cause we conceive that the muriate of  
“ soda, which has hitherto been separated,  
“ and also a larger complement of the oxide  
“ of iron may for some constitutions be very  
“ salubrious. Moreover, if this were done,  
“ all persons residing at a distance might at  
“ all times and in all seasons prepare a medi-  
“ cated water for themselves, which would  
“ possess nearly all the properties of real  
“ Cheltenham waters.”

This seems very ingenious and very reasonable in theory; but mark what is the answer of experience!

“ Mr. Thompson embraces this oppor-



“ tunity of thanking the Authors of the  
 “ Treatise for the perspicuous and correct  
 “ account of the different processes for pre-  
 “ paring the Cheltenham salts ; and he is  
 “ much obliged to them for the hint to pre-  
 “ pare the Original combined Cheltenham  
 “ Salts ; three years ago, however, he en-  
 “ tertained the same opinion, and prepared  
 “ some of the salt agreeably to the method  
 “ recommended ; but the medical gentlemen  
 “ who gave it a trial did not make a favour-  
 “ able report of it.”

The medical gentlemen who tried the  
 “ Original combined Cheltenham Salts”  
 found in it the same objectionable effect as  
 they would find in the concentrated Chelt-  
 enham water, were they to try it alone ; but  
 as it is given mixed with the natural Chelt-  
 enham water, the inconvenience produced  
 by it is attributed to the latter ; so that this  
 prejudicial custom is continued through in-  
 attention, but the unfavourable impression  
 produced on the mind of the disappointed  
 patient is injurious to the reputation of pure

unsophisticated Cheltenham waters. I am desirous of persuading those whose interest it is to keep up the justly acquired reputation of the Cheltenham waters, to discontinue this custom, under a firm conviction that they are naturally one of the best cooling alterative remedies we have.

The first day I arrived at Cheltenham I visited Mr. Thompson's laboratory, which I found extremely well adapted for the purpose. On approaching the crystallizing vat, I took out one of the sticks then covered with crystals, and at first sight declared that potass formed one of the bases of the salts then on the stick ; the foreman overheard me, and with honest zeal, contradicted me in words that did credit to his heart, but were not flattering to my ears, declaring by all that was sacred, that not a grain of potass ever entered that place except what was used to separate the magnesia from its sulphate, which was done after the salts, then crystallizing, had been obtained. I was obliged to qualify my expressions by saying I did not

mean to say that potass had been added, but that it did exist, and, I dared say, it was so naturally.

A few days after I met Mr. Pearson Thompson, and related the circumstance to him ; he told me that the same observation had lately been made by the Rev. G. Cook, and that his father was convinced of it. Since that time I have seen Dr. M'Cabe's Treatise on the Cheltenham Waters ; and I here copy what he has published by permission of Mr. Cook.

“ To evaporate the fluid and subject the  
 “ dry deposit to the most accurate scrutiny  
 “ of tests, would be an imperfect analysis of  
 “ saline waters ; and the improvements in  
 “ analysing gas do not exactly ascertain  
 “ the proportional combinations before the  
 “ decomposition takes place. If sulphuric  
 “ and muriatic acids are contained in the  
 “ waters, gas will not freely escape ; there-  
 “ fore, if a pint of Cheltenham waters con-  
 “ tain eighty grains of soluble matter, three  
 “ thousand two hundred grains will be con-



“ tained where forty pints are reduced to  
“ one pint.

“ This proves the difficulty of analysing  
“ by the gas process. The Cheltenham  
“ waters probably consist of potass, soda,  
“ lime, iron, and magnesia, upheld by the  
“ carbonic, muriatic, and sulphuric acids.  
“ In the process of evaporation, the car-  
“ bonic and muriatic acids either escape or  
“ are held in solution in the mother liquor,  
“ and the crystallized salts are sulphates.  
“ If iron is upheld by the carbonic acid,  
“ you cannot gain weight in the fluid by  
“ concentration. On the application of  
“ heat, the carbonic acid will escape, and  
“ the oxide of iron be deposited ; but if iron  
“ is upheld by the muriatic or sulphuric  
“ acids, as in the Cheltenham waters,  
“ weight will be gained by concentration.  
“ This fact may be illustrated by Mr.  
“ Thompson’s mother liquor. A pint of  
“ Cheltenham water holds in solution about  
“ a hundred grains ; a pint of Mr. Thomp-  
“ son’s mother liquor, probably four thou-

“ sand grains. Sir Humphrey Davy is of  
 “ opinion, that the principal ingredient in the  
 “ Cheltenham waters is the sulphate of soda.  
 “ Mr. Brande is of opinion that the prin-  
 “ cipal ingredient in the Cheltenham water  
 “ is muriate of soda ; but neither of them  
 “ mention the muriate of lime, the sulphate  
 “ of potass, or the muriate of iron, as com-  
 “ ponent parts of either the salts or waters.  
 “ The reason for supposing that the sulphate  
 “ of potass rather than the sulphate of soda,  
 “ is a principal ingredient in the Cheltenham  
 “ salts is, that the sulphate of soda is an  
 “ octohedral prism, sulphate of potass an  
 “ hexhedral pyramid\*. The sulphate of  
 “ magnesia is a tetrahedral parallelogram.  
 “ Mr. Thompson’s salts are partly tetrahe-

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\* This is a mistake ; sulphuric acid and soda form a salt which crystallizes in long six-sided or hexhedral *prisms* ; the crystals are often irregular, and their sides usually channelled ; they are terminated by dihedral summits ; whereas the same acid and potass form a salt with hexhedral *pyramids*, is not affected by the air and decrepitates in the fire.

“ dral, terminated by hexhedral pyramids,  
“ which proves the combination of magnesia  
“ and potass.

“ If the process be considered, the dif-  
“ ference between Sir H. Davy and Mr.  
“ Brande may be reconciled. If there be a  
“ prevalence of muriate of soda in the water,  
“ but also the sulphuric acid contained in it,  
“ when the muriate of soda comes to its  
“ saturated point, the muriatic acid will  
“ either escape or be held in solution in the  
“ mother liquor, and the salt become the  
“ sulphate of soda.

“ In February, 1819, Mr. Thompson’s  
“ method of judging the proper time to set  
“ for crystallization was by the pellicle on  
“ the surface of the fluid ; and if the liquor  
“ was the same weight, the same evapora-  
“ tion will always produce the same effect ;  
“ but as the liquor may vary in weight, it  
“ was suggested to set it at the saturated  
“ point of the muriate of soda. By this  
“ process, the salts less soluble than the  
“ muriate of soda were precipitated, and



“ the salts more soluble held in solution in  
 “ the mother liquor. The Cheltenham salts  
 “ will then consist of sulphuric acid, united  
 “ to potass, soda, and magnesia; and the  
 “ mother liquor consists of sulphate of mag-  
 “ nesia, sulphate of soda, muriate of iron,  
 “ muriate of soda, and muriate of lime.

“ It is difficult to say how many grains  
 “ are in saline waters without knowing the  
 “ principal salt contained in them; for if  
 “ two ounces of sulphate of soda are dis-  
 “ solved in half a pint of distilled water, the  
 “ soluble matter contained in one thousand  
 “ five hundred and sixty grains of the fluid  
 “ will be a hundred and five grains. If the  
 “ same quantity of muriate of soda be dis-  
 “ solved in the same quantity of water, the  
 “ soluble matter will be two hundred grains  
 “ in a bottle containing one thousand five  
 “ hundred and sixty grains of distilled  
 “ water.

I have mentioned the circumstance of  
 having noticed potass as one of the bases  
 of Cheltenham salts, and consequently

may be fairly contended to be one of those of the Cheltenham waters, not with an idea of disputing the priority of discovery with the Rev. G. Cook, but with the intention of corroborating his observations. To our united testimony it may perhaps be objected that, so many men of known superior talents have repeatedly analysed these waters, and not one of them has hinted at the presence of potass. To this I will answer — 1st. Analysis is effected on a small quantity of water, the residue is consequently small in proportion, and each of the salts in so very minute a quantity, that the form of the crystals can scarcely be discovered ; not so when a large quantity is evaporated in order to obtain salts for public sale. In the latter case the crystals are sufficiently abundant, and each so large that it cannot be mistaken, for Nature is as regular in the formation of mineral productions as she is in the vegetable or animal world ; each salt has its peculiar form, size, and property, as every tree or shrub has its peculiar texture,



bark, and leaf, or every animal its form, covering and quality. You would hardly take a goat for a sheep, a horse for a cow, or an oak for a sycamore tree.—So in saline crystals, each salt preserves its peculiar form, which cannot be mistaken by the practised eye. I understand Mr. Cook has been accustomed to see crystallization upon a large scale, and so have I, and for that reason presume to give an opinion on the form of crystals. In the second place some Chemists may be influenced by the terms mineral and vegetable alkalies, and draw hasty conclusions from this circumstance, supposing that a vegetable salt cannot exist in a mineral water, while others, more enlightened, unwilling to stem the torrent of opinion, content themselves by following the beaten path. Potass and soda are called fixed alkalies; why they are so called is not necessary that I should here explain; potass is called the vegetable alkali, because it is generally procured by lixiviating the ashes of wood and other vegetables. Soda is de-



nominated fossile or mineral alkali, and is obtained by decomposing sea salt or muriate of soda, or by lixiviating the ashes of marine plants. In the present day it is known that potass exists in minerals, in certain stones, in aluminous ores, in earths, especially those of the silicious kind, and there is reason to believe that plants receive it from the earth during vegetation. As there is also reason to suppose that marine plants have the power, during vegetation, of decomposing sea salt and retaining soda in their constitution. In France, during the revolution, the earth in cellars was dug and lixiviated to make saltpetre for the manufactory of gunpowder ; this practice has been found to answer the purpose so well, that it is continued to this day, and the government claims all such soil as its property. It contains so much potass, that a very small quantity only is added to the concentrated lixivium to form crystallized nitrate of potass or saltpetre.

Moreover Sir Humphrey Davy has proved

beyond a doubt, that both potass and soda are metallic oxides. Potass in an uncombined state has been found in the water of some wells ; I see no reason then why it should not exist in a combined state in mineral waters. It is impossible, by inspection, to distinguish the fixed alkalies when in a state of purity, yet by their union with the same acid they form salts very different in their properties and appearance.

There is, therefore, every reason to conclude that the crystallized alkaline sulphates of Cheltenham are sulphates of magnesia, of soda, and of potass, forming a salt with triple basis, and consequently that the waters which afford this salt are aperient and diuretic as well as alterative, and by paying attention to the dose in which they are administered, may be rendered tonic.

I have endeavoured hitherto to prove by their positive synthesis, (or, strictly speaking, naturally combined component parts) that the Cheltenham waters are sufficiently



impregnated with their different salts to preclude such addition as are usually made, even those of a purgative quality, and which in my opinion, disnaturalize them ; my next attempt will be to corroborate this idea by stating their comparative analysis. For this purpose I have selected some of the most celebrated mineral waters on the Continent ; by comparing the analysis of each of them with that of the Cheltenham waters, the reader at one view will be able to decide on their relative degree of saline impregnation. The analysis of the Continental waters are taken from different Chemists ; that of the Cheltenham waters is Dr. Scudamore's, which I have preferred because it is the latest ; it is the only one that comprises all the establishments ; it is not so much known, and is not inferior to those with which the Public is more generally acquainted.

I subjoin Dr. Scudamore's analysis of the different Spas at Cheltenham, beginning with the Montpelier Spa or Mr. Thompson's pump-room, next the Sherborne Spa, and



finishing with the Old Wells, or what is called the Original Spa.

The following analyses are taken from one pint of water.

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MR. THOMPSON'S WELLS

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No. 1.

Sp. Gr. 1,0085.

	Grains.
Muriate of Soda .....	55,50
Lime .....	3,31
Magnesia .....	2,10
Sulphate of Soda .....	21,80
	<hr/>
	82,71

Oxide of iron, a minute portion.

## No. 2.

Sp. Gr. 1,0065.

	Grains.
Muriate of Soda .....	25,70
Lime.....	3,31
Magnesia .....	1,52
Sulphate of Soda .....	21,76

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 52,29

Oxide of iron, a minute portion.

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 No. 3.

Sp. Gr. 1,0067.

	Grains.
Muriate of Soda .....	31,00
Lime .....	1,84
Magnesia .....	2,05
Sulphate of Soda .....	22,80

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 57,69

Oxide of iron, a trace.

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 No. 4.

Sp. Gr. 1,0077.

	Grains.
Muriate of Soda .....	46,40
Lime.....	3,07
Magnesia .....	2,02
Sulphate of Soda .....	28,64

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 80,13

No. 5.

Sp. Gr. 1,0065.

	Grains.
Muriate of Soda .....	23,50
Lime. ....	4,92
Magnesia .....	3,61
Sulphate of Soda .....	38,80
	<hr/>
	70,83

Oxide of iron, a minute portion.

No. 6.

Sp. Gr. 1,0098.

	Grains.
Muriate of Soda .....	76,15
Lime .....	3,07
Magnesia .....	3,02
Sulphate of Soda .....	11,62
	<hr/>
	93,86

Oxide of iron, a minute portion.

R



## SHERBORNE SPA.

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 No. 1.

Sp. Gr. 1,0011

	Grains.
Muriate of Soda .....	3,31
Lime .....	1,23
Magnesia, a trace	
Sulphate of Soda .....	4,37
	<hr/>
	8,91

Oxide of iron, probably half a grain in a gallon.

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 No. 2.

Sp. Gr. 1,009.

	Grains.
Muriate of Soda .....	72,8
Lime .....	4,29
Magnesia .....	0,59
Sulphate of Soda .....	6,76
	<hr/>
	84,44

# ON CHRONIC AFFECTIONS, &c. 123

No. 3.

Sp. Gr. 1,0012.

	Grains.
Muriate of Soda .....	1,67
Lime .....	1,85
Magnesia, a trace	
Sulphate of Soda .....	2,43
	<hr/>
	5,95

## OLD WELLS.

No. 1.

Sp. Gr. 1,0091.

	Grains.
Muriate of Soda .....	58,20
Lime .....	6,21
Magnesia .....	2,54
Sulphate of Soda .....	14,56
	<hr/>
	81,51

Oxide of iron, a minute portion.

No. 2.

Sp. Gr. 1,0089.

	Grains.
Muriate of Soda .....	22,60
Lime .....	3,68
Magnesia .....	5,16
Sulphate of Soda .....	52,32
	<hr/>
	83,76

Oxide of iron, a minute portion.

No. 3.

Sp. Gr. 1,0083.

	Grains.
Muriate of Soda .....	17,60
Lime .....	3,08
Magnesia .....	3,30
Sulphate of Soda .....	43,20
	<hr/>
	67,18

Oxide of iron, probably a grain in one gallon.



No. 4.

Sp. Gr. 1,0122.

	Grains.
Muriate of Soda . . . . .	47,80
Lime . . . . .	4,29
Magnesia . . . . .	7,30
Sulphate of Soda . . . . .	59,20
	<hr/>
	118,59

Oxide of iron, a trace.

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*Analysis of some of the most celebrated Continental Mineral Waters.*

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BALARUE.

Temperature of the Waters, 118°.

Sp. Gr. by 1,023 to 1000.

	Cube inches.
Carbonic acid gas . . . . .	6

	Grains.
Muriate of Soda.....	67,575
Magnesia .....	12,291
Lime .....	8,175
Carbonate of Lime.....	1,5
Magnesia .....	0,325
	<hr/>
	90,366
Iron, a minute portion.	

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### BAGNERES DE BIGORRE.

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Carbonate acid Gas, a small quantity

Sulphuretted hydrogen, still less

Temperature from 87° to 153.

	Grains.
Muriate of Magnesia .....	1,5
Sulphate of Magnesia .....	10,25
Lime .....	9
Carbonate of Lime .....	5
Unctuous matter .....	0,25
Carbonate of iron .....	0,37
	<hr/>
	26,37

AIX LA CHAPELLE.

Temperature 137°.

Sp. Gr. 1,012, to 1,000.

	Grains.
Carbonate of Soda .....	4,899
Muriate of Soda .....	26,727
Sulphate of Soda .....	2,373
Carbonate of Lime.....	1,173
Magnesia.....	0,396
Silex .....	0,634
	<hr/>
	36,202

Cube inches.

Sulphuretted Gas ....	14,27
Carbonic acid gas ....	9,029



### AUDINAC.

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Sulphuretted hydrogen gas, a very minute quantity

Carbonic acid gas. two grains 4-5.

	Grains.
Sulphate of Lime .....	6,666
Magnesia .....	6,000
Muriate of Magnesia .....	3,333
Carbonate of Lime .....	4,75
Iron .....	0,66
Bitumen .....	0,333
	<hr/>
	21,742

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### USSAT.

Temperature from 95° to 104°.

Sp. Gr. as 1,000 to 1002,528

	Grains.
Muriate of Magnesia .....	0,315
Sulphate of Magnesia .....	2,535
Carbonate of Magnesia .....	0,09
Lime .....	2,46
Sulphate of Lime .....	2,812
	<hr/>
	8,212

SPA.

Cube inches.	
Carbonic acid gas....	0,45
Grains.	
Crystallized Carbonate of Soda .....	1,5
Muriate of Soda .....	0,18
Iron .....	0,59
Lime .....	1,5
Magnesia .....	3,63
<hr/>	
	7,40

AVENNES,

Near Montpellier, in the Dept. of the Herault.

Grains.	
Carbonate of Lime .....	0,535
Magnesia .....	0,063
Sulphate of Lime .....	0,011
Soda .....	0,176
Muriate of Soda .....	0,064
Lime .....	0,012
Magnesia .....	0,012
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	0,873

## BAGNERES DE LUCHON.

THESE Waters contain, by the analysis of the celebrated Bayen, sulphuretted hydrogen, carbonate of soda, muriate of soda, sulphate of soda, silex, and a small portion of extractive matter; all these substances are in such small quantities, that out of a pint of water there is scarcely two grains and a half of residue.

The temperature from 55° to 121°.

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VICHY.

Sp. Gr. 1,0052.

	Grains.
Muriate of Soda .....	4
Sulphate of Soda .....	16
Carbonate of Soda .....	30
Iron .....	0,25
Magnesia .....	1,75
	<hr/>
	52,00

Carbonic acid gas, a small quantity.



It is sufficiently ascertained that the Cheltenham waters contain, generally, sulphuretted hydrogen and carbonic acid gases; of these analyzed by Messrs. Parke and Brande, No. 4, or the pure saline water, is the only one among Mr. Thompson's wells that does not hold these gases—And No. 6, or saline chalybeate, has a large proportion of the carbonic acid gas, and no sulphuretted hydrogen. Dr. Scudamore has not mentioned these gases in his statements of the different analyses.

Most of the Continental mineral waters that have been here noticed are what are generally termed *thermal* waters, varying in their different degrees of temperature, so as to form hot, warm, and temperate waters, each of them has some peculiar medical property ascribed to it; some of these properties I have seen verified by my own practice, and many others confirmed by the authority of writers of great credibility, and by highly estimable private practitioners, with whom I have had much intercourse in the

line of my profession ; those waters are also more or less gaseous ; they are also for the most part saline ; though not one of them is so highly impregnated with this latter principle as the Cheltenham waters are. Balaruc comes the nearest in quantity of salt held in solution ; the acids which form the salts are the muriatic and carbonic. The temperature of these waters is as high as 118 of Fahrenheit. They are made use of in baths by the pumping apparatus, (douche), and are taken internally, alone or diluted with milk, or some mucilaginous infusion or decoction. The muriate of soda is in a larger proportion in the waters of Balaruc than it is in those of Cheltenham, yet, by being diluted, and by being prescribed in baths, at the same time that they are internally administered, they produce a purgative effect without irritating, and by this combination their use is longer supported without inducing debility ; when given in an undiluted state, it is only for a few times, their continued use is always preferred in a diluted form and combined



with the baths. They are recommended in jaundice and other bilious complaints, but their great celebrity is due to their reputed efficacy on paralytic patients, who are carried in crowds to this place, in hopes of procuring that relief which the best medical advice nearer home had failed to afford them ; but alas, many are disappointed ! Although a good remedy, it is a misfortune to expect too much from it. There are certainly many cures effected by these waters on record, and I have seen some who have been restored to health by their use. Patients who return from Balaruc generally take some of the waters, carefully bottled, with them, and occasionally take a half-pint tumbler of it warmed in *Balneo mariæ* and diluted with milk.

The waters of Vichy are saline, gaseous, and thermal, varying in temperature from 82 to 140 of Fahrenheit ; these waters are considered as aperient and diuretic ; they are not so much impregnated with saline principles as the Cheltenham waters are ; they



are recommended in bilious and nervous complaints, also in chronic affections of the digestive organs; their celebrity is such that it is needless I should attempt to say any thing in their praise. My motive in mentioning them is to prove that it is not necessary saline waters should contain so much salt in solution as is commonly imagined; and also the advantage of combining their internal use with warm baths, and in many cases the benefit that might be drawn from administering in a warm and diluted form, such saline waters as are generally of a temperature not above that of the atmosphere.

Aix-la-Chapelle is still better known, and probably more esteemed in this country. The waters of this celebrated place are hot—they contain more gaseous substances than those of Cheltenham, but are infinitely poorer in saline productions. They are made use of in baths and taken internally.

Spa, once the resort of all that was gay and fashionable, and of many persons of ruined

constitutions and ruined fortunes. The analysis of the waters of this once celebrated watering place gives a saline production, but it is in an infinite small proportion when compared with Cheltenham waters ; but they are highly gaseous ; nothing is more easy than to convert Cheltenham waters into Spa water ; if to one part of Cheltenham waters at the bottom of a glass you pour two parts of soda water, so pleasant and so fashionable a beverage, you will then have Spa water in no respect inferior to the original.

The waters of Bagneres de Bigorre are celebrated for their medical properties in bilious complaints, and all others depending on disordered functions or organic affections of the abdominal viscera, particularly those of the liver. The analysis of these waters affords but a small quantity of a saline production, when compared with that of the Cheltenham water ; but the waters of Bagneres are warm, they are made use of in baths, at the same time they are taken internally, and by this combination are found sufficiently purgative,



and are most commonly useful, if the complaints are not too far advanced ; their combined use is continued regularly every day, sometimes for a month or longer, and the patients generally gain strength and spirits during the time they take them ; the latter part of the treatment, when successful, is carried on by the use of the water of a simple chalybeate spring near the town, without discontinuing the warm bath. I have sent many patients to Bagnères de Bigorre, and most of whom had much reason to be satisfied with the use of these waters and baths.

About four leagues from Bagnères are situated the most renowned and ancient mineral waters of the Pyrenees—Bareges, where Cæsar and Sertorius partook of the health-giving springs, and erected monuments worthy the Roman grandeur. Of all the celebrated mineral waters of Europe, none are reputed to possess more medical properties than those of Bareges. They are particularly recommended in complaints of the liver and the spleen ; in incipient phthisis



pulmonalsis ; in cutaneous diseases and chronic rheumatisms. There is a Military Hospital established for the reception of those who have been wounded in the service of their country, and it is astonishing to see many who go there in a crippled state, quit their crutches, and return home with the use of their limbs. There are wards in that hospital to receive military men with old venereal complaints that have resisted the use of mercury, they are sent at the expense of the French government ; if this practice was not found to produce the desired effect, it is not probable that a government would be at the expense of sending its soldiers to so great a distance. Was I to give an opinion on this practice, I should be disposed to say that its great effect is to *demercurialize* the patient, whose malady is more the fruit of the remedy than the consequence of original virus. I shall leave this, however, to be decided by the army surgeons who direct the treatment. These, as well as most of the other thermal mineral

waters are made use of, as an internal remedy, are employed as baths, with the douche, in injections and lotions; they are thus used in ulcers and gun-shot wounds. Exfoliations, and even balls that could not be extracted by the most expert surgeons, have been expelled, and wounds cicatrized, that had baffled the means usually employed.

Bareges is situated in a valley of that name in the heart of the Pyrenean mountains, it is covered with snow more than half the year; there are only a few houses inhabited during the winter; the different tradesmen repair there in the summer, and occupy temporary huts for the space of four or five months, and the company in general is very indifferently accommodated, excepting those persons who arrive early in the season, and engage the few decent apartments to be found in the place. The country is barren, and inspires every other idea but that of comfort; yet such is the reputation of these waters that persons of the highest rank of both sexes

flock to them from all parts of Europe. I have known some highly distinguished characters from our own country who visited Bareges, many of whom derived much benefit from the use of the waters.

No exact analysis has been made of these waters, though many have attempted it; however it is clearly ascertained that they contain sulphuretted hydrogen gas, muriate of soda, carbonate of soda, an absorbent earth, alumine, and bitumen, but all in a very small quantity; they are of different degrees of temperature, some hot, some warm, and some temperate; they vary from about 90 to nearly 140 of Farenheit.

These waters contain an infinitely less quantity of salts than the Cheltenham waters, and those salts have not the avowed purgative quality that the alkaline sulphates of Cheltenham possess; yet by combining the use of the waters in drink and in baths, they are found sufficiently purgative, and seldom require any other means to be employed to keep the bowels open.



Is it to the quantity of the water absorbed in the bath and carried into circulation ; or is it to the action of the caloric on the surface, or is it to both we are to attribute this effect ?

The waters and baths of Bareges are perfectly imitated at Tivoli, in Paris, and from several conversations that I have had with some eminent Physicians in that capital, they appeared quite satisfied with their effect. If then they have been brought to perfection at Paris, there is much reason to presume that the same may be effected at Cheltenham, where the principal ingredient is already at hand, the Cheltenham water ; the caloric, sulphuretted hydrogen gas, &c. could be easily added, and English patients might be indulged with Bareges, or any other baths, without foregoing the comforts of their own country.

Cauterets is another watering-place, much frequented ; it is situated about seven leagues from Bareges ; it was formerly a small village, but from the reputation of its mineral

waters, it is become a very considerable place, and can boast of many handsome and commodious houses, and much fashionable company during the summer season. There are many springs at Cauterets, the temperature of which varies, that of the lowest is 66, and that of the highest 130 of Farenheit. The analysis of these waters affords sulphuretted hydrogen gas, and a small quantity of sulphate of soda. They are recommended in baths, and douche; they are given internally sometimes in their natural state, but are more frequently diluted with milk or some mucilaginous infusion or decoction. Some pretend that they are similar to those of Bareges, although by analytical examination it appears, that the latter contain saline substances which have not been found at Cauterets.

The waters of Cauterets are much recommended in the south of France in incipient phthisis pulmonalis; how far they may be successfully employed in such a complaint, is difficult to ascertain, but I must in justice

own, that I have seen some cases where they appeared to arrest the progress of the disease for a while. From what I have seen I am induced to think, that these waters are more particularly calculated to combat those maladies when they depend on scrophulous diathesis, or are consequent on affections of the digestive organs.

I have mentioned several of the most renowned thermal mineral waters on the Continent, which are employed externally in baths, douches, and lotions ; and at the same time taken internally as aperients, alteratives, diuretics, and sometimes sudorifics ; my next object is to notice an establishment, where a mineral water, naturally cold, is heated for baths, douches, &c. which are combined with its internal use.

Audinac, near St. Girons, in the department of the Arriege. These waters are nearly of the same temperature as the surrounding atmosphere ; Mr. Magnes, a very able and experienced Chemist at Toulouse, analyzed them ; he observes, that in plunging the



thermometer of Réaumur into the spring, before sun-rise in the month of August, the mercury rose only one degree, two degrees and a fraction of Farenheit's, which I believe may be considered as the general temperature of water, taken at a spring at such a season and hour of the day. These waters, from their smell, taste, and colour of their sediment, excited the attention of the people in the neighbourhood, who drank them indiscriminately, and used them as lotions and baths, and applied the sediment in the form of poultice in many local complaints, such as anchyloses, old ulcers, &c. and many cures were imputed to them; they have been a popular remedy in that country for more than a century; the present proprietor has had them analyzed, and by the advice of some men of science, built a handsome hotel for the accommodation of patients, and erected a complete establishment for warm baths, douches, &c. which are now in great credit, and may be said to rival some of the most celebrated baths of the Pyrenees. I

have witnessed some instances of their good effect in disorders of the digestive organs, in nervous complaints, in cutaneous diseases and chronic rheumatisms, but one of the most learned Physicians at Toulouse, a professor and son of a president and professor of the ancient Faculty of Medicine of Toulouse, Dr. Dubernard, makes use of these waters internally and externally in gout, to which he is subject, and recommends the same to his patients. They are taken sometimes cold, sometimes warm, often diluted with milk, or some mucilaginous infusion or decoction.

The waters of Bagnères de Luchon are thermal mineral waters, and resemble in their analysis, as they do in their medical properties, those of Bareges,—though not so much renowned; but from the superior accommodations the town affords to strangers, these waters and baths are much frequented.

The next and last of the thermal mineral waters of the Continent, which I shall submit to the consideration of my readers, are

those of Ussat, near Tarascon, in the ancient Comté de Foix, now the department of the Arriege. The analysis of these waters was effected by Mr. Fignier, professor of chemistry at the University of Montpellier, whose personal reputation is a sufficient guarantee of the accuracy with which it was prosecuted. The waters of Ussat are used in baths and douches, with descending and ascending tubes, the latter serve as syringes in particular circumstances; their reputation is so far established throughout the South of France, that the approbation or disapprobation of any one man can be of no avail, and was I still in that country, this conviction would have its due weight; but as they afford an unanswerable argument in favour of warm mineral baths, I do not bring them before the public to eulogize them, but as a foundation on which I hope to be able to establish a conviction in the public mind of the utility, or rather of the necessity of a similar institution in this country. The analysis shews that these waters contain muriate of



magnesia, carbonate of magnesia and lime, sulphate of lime, &c. and differ little from some of the Cheltenham waters, excepting that they are much weaker, and are warm.

The waters of Ussat are recommended in nervous disorders, in complaints of the digestive organs.\* In female disorders, whether

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\* *Extract of a Letter from Dr. Chrestien, to Mr. Roques at Foix, dated Montpellier, 17th March, 1810.*

“ M. Lapeyrière qui, sur mon avis, y fut  
“ de Paris, en retira un bien sensible pen-  
“ dant le séjour qu’il y fit. S’il retourne  
“ dans la Capitale, comme c’est son projet,  
“ avant d’aller à Ussat, il sera plus utile à  
“ vos bains, que tous les éloges qu’on pour-  
“ rait leur donner. On le vit partir d’une  
“ maigreur affreuse, ne prenant que trois ou  
“ quatre onces de nourriture dans les vingt-  
“ quatre heures, et souffrant encore beau-  
“ coup pour la digérer, au point que son

arising from disturbed function or organic injury, innumerable proofs could be produced of their efficacy. I have seen many cases, which the delicacy of the subject will not

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“ Médecin soupçonnait une obstruction dans  
 “ l’estomac, ayant peine à se soutenir, il ar-  
 “ riva dans cet état à Ussat ; et on le verra  
 “ arriver frais, fleuri, faisant trois repas par  
 “ jour, marchant pendant trois et quatre  
 “ heures, sans être fatigué. Je l’avais con-  
 “ sulté auparavant, et j’avais reconnu chez  
 “ lui quelques légers embarras dans les dif-  
 “ férents viscères du bas ventre, effet, d’après  
 “ mon opinion, de la sécheresse et de la  
 “ rigidité de la fibre, s’accompagnant d’une  
 “ sensibilité excessive du genre nerveux.  
 “ Entre-autres remèdes, je lui proposai les  
 “ bains d’Ussat, parce que d’après ce que  
 “ j’en avais observé sur moi-même, je n’en  
 “ connais pas de meilleurs, quand on a  
 “ l’érétisme et la sensibilité nerveuse à com-  
 “ battre.”

suffer me to publish in detail, where females of the highest respectability, whose conduct was irreproachable, had laboured under a train of what are usually termed nervous disorders, and who, on examination, had been found to have the *os et cervix uteri* considerably indurated, and have been perfectly cured by the sole use of these baths. Mr. Viguerie, of Toulouse, well known to most of the medical men who were attached to the Duke of Wellington's army, as an eminent surgeon, and Mr. Duclos, professor of midwifery at Toulouse, have seen and examined, at my request, several of the patients above alluded to. Indeed, I do not think there is one medical man of reputation in or about Montpellier or Toulouse, that cannot speak from his own experience as to the good effects of these baths. Their salutary quality as a general deobstruent is not less esteemed, and many, very many cases are added every year to the long list of cures of obstructed lymphatic and sanguiferous fibres in the tissues of various organs.



In the former part of this work I have hinted at the powerful agency of the skin in the cure of chronic affections of internal organs in general. Every physiologist knows that it performs an essential part in the function of digestion, in that of nutrition, absorption and respiration ; that if not the regulator of the quantity of caloric, with which living bodies ought to be impregnated, it is the organ to whose office Nature has recourse to disengage herself from a superabundance of caloric. The skin is, moreover, so highly endowed with nerves ; it is the organ of feeling ; it is in immediate relation with the sensorium commune ; is in a direct and indirect relation with the heart, and the sanguiferous and lymphatic vascular systems ; it is, therefore, not wonderful that it should be one of the principal agents in maintaining and restoring the equilibrium in the circulation of the blood, as well as the equal distribution of the nervous influence, and that it should in a great degree influence the action of the absorbent vessels.

The experience I have had of the use of warm mineral baths on the Continent, and the conviction I have in my own mind of their great utility, make me desirous of recommending them to the attention of medical men in my own country; not that their use is unknown to them, nor that they do not recommend them on particular occasions, but that it seems to me they do not sufficiently appreciate the general advantage of such a valuable remedy, nor duly consider the manner in which it acts on the human body. The warm bath is prescribed in this country but in a very few cases, and it is ordered in such a manner that very little benefit can be expected from it in the few complaints for which it is prescribed. What effect can be expected from a warm bath of ten, or at most fifteen minutes, which is the general practice in England? I find it is the prevailing opinion that it would be unsafe to continue longer than that time in the bath. I will not enter into any reasonings on this subject, but shall oppose the opinion with facts.

Upon the Continent, where so much good is produced by this powerful remedy, no one thinks of recommending a patient to stay less than an hour in the warm bath; and at Us-sat, where so many cures have been effected by means of the bath, and by such means *only*, I have known many weakly delicate patients take two baths of one hour each every day for three weeks without intermission; and I have no doubt in my mind, and the same conviction pervades medical men in general in France, that it is owing to this manner of taking the warm mineral baths, so much good is effected by that remedy; and by parity of reasoning, I may say that little good is obtained from them in this country, because there is not sufficient time allowed for bathing. But it may be objected that persons on the Continent are more accustomed to warm baths; and that they can bear them better than we can. I will answer again by facts.

Since I have been at Cheltenham, I have been consulted on this subject by several per-



sons who were incommoded by drinking the waters, I have prescribed the warm bath. Two patients remained in half an hour as I had advised them, and were greatly relieved from the first bath ; and by repeating the baths half a dozen times, went away well satisfied, and their health greatly ameliorated by their stay in Cheltenham, by the use of the Cheltenham waters, assisted by the warm Cheltenham salt water bath.

A third case, a man of learning, a gentleman who for many years had studied hard, who may be said to have enriched his mental faculties at the expense of his physical power, and who had been an invalid for upwards of three years, consulted me. I prescribed among other things warm Cheltenham salt water baths. He took three or four, each of ten or fifteen minutes, found himself no better, and had a great aversion to continue them. It was in vain I attempted to say that he did not stay in a sufficient time to do himself good, and that taking them for so short a time was only an apology for a bath.

He had frequently taken warm baths before, under restrictions from his physician not to stay longer than ten minutes in the bath, because it would be dangerous. To engage him to prolong his time of bathing I accompanied him to Mr. Thompson's baths. The water was prepared at 96 degrees of Fahrenheit's, and carefully kept up to that degree, sometimes to 97. I felt his pulse occasionally, and found it develope itself after he had been in fifteen minutes ; I amused him with conversation, and by letting the bather, a very civil and attentive man, into my secret, we kept him upwards of half an hour in the bath ; when dressed and in the waiting room, he said that he found a glow of comfort all over him, which he had not found before ; he felt himself much better all day, and passed a better night than he had done for a long while. He has taken several more baths since, of above 35 minutes each, and is really much better than he has been for years ; he continues the

baths at this time, and both patient and physician are in sanguine hope of a cure.

There are several very commodious bathing establishments at Cheltenham, with shower baths and douches (pumping apparatus) among them. Mr. Freeman's and Thornton's are very convenient; and in the town, and at both these establishments cupping is performed. Those of Mr. Thompson are on a very large scale, the cold water bath and two of the warm water baths being large enough to swim in. They will be still improved before the next season, as I have been informed by the present proprietor. The author has recommended him so to arrange his baths, that every known mineral bath in Europe may be obtained at his establishment, on the same principle as the baths of Tivoli at Paris.

Mr. Thompson's baths are warmed by means of steam; and at any hour in the day a bath is filled in four minutes and a half, and the degree of warmth accommodated to



the wish of the patient, which is constantly kept up, and regulated according to Fahrenheit's thermometer, one of which is annexed to each bathing-room. The temperature of the whole building is maintained at 60 degrees, by means of steam conveyed in tubes to every apartment; so that patients may be accommodated throughout the year with warm simple or mineral baths; moreover, there are plenty of sedan chairs and other convenient vehicles to convey them to any part of the town, without exposing themselves to the inclemency of the weather, although it is a mistaken idea that warm mineral baths render a person more susceptible to cold; it has quite a contrary effect, which could easily be proved; but the limits and direct object of this work will not allow the author to enter into that subject at present.

Cheltenham may really be deemed an asylum for invalids at all seasons of the year. I have not resided long enough to be able to decide from my own meteorological observations, how far Cheltenham may be a favor-

able residence for patients labouring under complaints of the chest, but if I may judge from its geographical position, from the nature of the upper bed of its different strata, and the distribution of its buildings ; being sheltered by the Cotswold Hills from the N. N. E., E. and S. E. winds ; the sandy surface of the soil, and the open, dispersed, and airy manner in which the houses are built, most of them provided with a garden ; and the town altogether free from the inconvenience of any manufactory whatever, and being well supplied with milk and vegetables, as it is indeed with all the comforts of life. Under these considerations were I to venture an opinion, I should say that I know no part of England more favorable for such invalids.

From many years residence in the South of France, I have had numerous opportunities of observing consumptive patients travelling far to seek a better, but generally encountering a worse climate. On some future occasion I may treat this subject more fully.

As much has been said of the warm bath,



it may be naturally expected that something should be said of the cold bath ; to this the author replies, that warm baths have been introduced as forming a very material part of the treatment of the complaints in question. But as he considers the usefulness of the cold bath to depend on the reaction it is capable of producing, he does not think that when an internal organ is in a state of congestion or inflammation, and the vital energy already much exhausted, reaction can possibly be effected, as such he is disposed to estimate the action of the cold bath, in such cases, as highly dangerous.

### *Concluding Observations.*

Post mortem inspections, detect various conditions of diseased viscera ; pathological anatomy having been more particularly attended to of late years, has given a more clear perception of the cause and progress of disease, and has enabled the physiologist to



throw off many of those shackles that false theory had forged for him under the pompous names of systems; and at the same time aided him to establish that true theory which *is the result of facts reduced into a principle.*

Among many other highly respectable authors of late date, we are particularly indebted to Morgagni, who has thrown much light on the obscure, yet unvarying proceedings of Nature in the different periods or stages of organic affections, but a more clear and extensive view of her inordinate and destructive efforts, was reserved for modern times. Bichat, cut off in the midst of his indefatigable researches, has furnished many important facts to prove the agency of inflammation in producing the destruction of internal organs.

The wrecks of disturbed functions, producing exalted organic action and ultimately organic destruction, have been more numerously discovered, and more accurately described by our own celebrated countryman,

Dr. Matthew Baillie, who to a perfect knowledge of anatomy, unites the valuable talents of a sound pathologist and most enlightened practitioner ; in his morbid anatomy, he exposes disease in all its forms and in all its lurking places. That work in the hands, or rather in the head of a prudent physician, may have the effect of an accurate chart in the possession of a skilful mariner, and often warn him in time to avoid many a sunken rock. Most of the phenomena assembled by Dr. Baillie in this valuable work, may be considered but the dire effects of acute or chronic inflammation ; the variety of their appearance depending more upon the texture and function of the organ or tissue affected, and the difference of the fibre concerned, than upon the variety of cause.

Another valuable and useful work has been recently published at Paris, (viz.) *Histoire des Phlegmasies ou Inflammations Chroniques, fondée sur de nouvelles observations de clinique et d'anatomie pathologique*, par F. J. V. Broussais, M. D.—Paris, 1816.—



Second edition.—Two volumes. In the first volume, page 5, he observes—“ C’est par  
“ une inflammation qui détruit avec plus ou  
“ moins de promptitude un ou plusieurs des  
“ viscères essentiels à la vie, que le plus  
“ grand nombre des hommes pèrissent.”

Chronic inflammation of the abdominal viscera often exists when little suspected, so insidious is it in its progress that it has happened in many instances to pass through its different periods and to destroy the patient, and its presence not thought of, until its ravages were detected on post mortem inspection. This modification of inflammation requires to be particularly studied in all its different shades, complexions and terminations, for none of the diseases to which the human body is subject, exemplify more anomalism in their perduration. In the early part of the disease some one or several of the following symptoms appear, (viz.) impaired appetite, thirst, heat, a heavy dull pain in some part of the cavity, sometimes a dry furred, yellow, white or brown tongue; it is at other



times red and dry, and sometimes morbidly clean and glairy; the pulse at the wrist small, frequent, and concentrated, sometimes slow and debile; flatulency, accompanied with costiveness, and at other times frequent small liquid dejections, generally of a dark colour; bilious affections, head-aches, spasms, and a train of nervous disorders, followed by hypochondriacis, dyspepsy, tympany, dysentery, which if not relieved by the kind efforts of Nature, aided by appropriate medical assistance, are succeeded by hydrocephalus internus, palsy, apoplexy, dropsy, colliquative diarrhea or hectic fever.

I have endeavoured to establish as a principle, that in the chronic, as well as in the acute inflammation of the internal organs, the first curative indication is to restore the balance in the circulation of the blood, and that the apparent debility of the patient should be but a secondary consideration; I have also, as well as I was able, pointed out the advantage of depleting the abdominal

venous system, and also the necessity of emptying the large intestines, by means of such remedies as are capable of stimulating their whole circumference to act upon and expel their contents, without irritating their tissues nor those of the other chylopoiëtic organs. I have also adverted to the peculiar utility of clysmas in cases of neglected accumulation of fœces in the lower bowels ; and have dwelt, I fear some may say, with prolixity on the nature and functions of the skin, of its intimate relation with the internal membranes, or its peculiar agency in determining the action of the sanguineous, lymphatic, absorbent and nervous systems, and consequently on its influence in restoring that harmony in the animal economy which may have been broken by an irregular distribution of the nervous energy, or an unequal determination in the circulation of the blood. I have also brought forward many facts to prove the efficacy of warm baths in restoring the functions of

the skin, and consequently establishing health \*.

It has been, moreover, my ardent wish to dissuade myself, as well as others, from expecting too much from any one remedy, or from any one means, and in our endeavours to relieve suffering humanity, to direct our attention to a prudent combination of all such means as may answer the indications to be fulfilled.

It is under such an impression that I recommend the use of the Cheltenham waters in the cure of chronic affections of the digestive organs, and in bilious and nervous complaints. I have already said that I consider these waters as an aperient, or cooling alterative remedy ; as such they promote the secretion of organs, and gently stimulate the different emunctories ; they give force to the different functions by favoring their ex-

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\* Local irritants often produce a good effect on the skin ; blisters, moxa, fontanels. and setons, under certain circumstances, are very useful.



ercise without irritating the agents by which it is performed.

Such are the effects we should expect from remedies in these complaints. Every thing that is capable of irritating should be carefully avoided; therefore a full purgative dose can rarely be admitted. Much of the advantage of mineral waters, as I have already observed, may be attributed to the diluted state in which they hold their component parts in solution. Agreeable to this principle, I should prefer diluting the Cheltenham waters with a little warm water, warm milk, or some mucilaginous infusion or decoction, rather than quickening their effect by the addition of concentrated waters or even salts; mineral waters on the Continent, infinitely less impregnated with salts than those of Cheltenham, are generally diluted in the above manner, and their salutary effect is the best apology for such a practice. At any rate I should conceive that the use of the Cheltenham waters should be begun in small doses, which might be aug-

mented gradually in case of necessity. Although, I repeat it, their medical property does not depend on their purgative effect alone, which is but one quality required in the complaints in question, and I firmly believe that it is owing to placing too much importance on that property so many people have been disappointed in their expectations, as Dr. Saunders has well observed. We should never forget that vessels that have once suffered by inflammation are the most liable to be inflamed again, when exposed to any exciting cause.

The internal use of the Cheltenham waters, in the author's opinion, should be accompanied by the use of a warm bath two or three times a week ; at any rate should the water produce any of the unpropitious symptoms before enumerated, the warm bath should be immediately resorted to and repeated according to circumstances ; and in case of increased irritation, or excitement in any of the abdominal viscera, not giving way to the warm baths and clysmas, leeches to the



anus should never be omitted. Even in acute inflammation, when the patient is able to bear a general bleeding, depleting the abdominal venous system, at the same time, should never be neglected when any of the abdominal viscera are suffering.

The author further remarks that in general the Cheltenham waters should be taken at different periods, (i. e.) when continued regularly for three weeks or a month, they should be suspended for ten days or a fortnight, and if the attending Physician thinks it practicable, the use of the simple chalybeate waters should be had recourse to, during that time. The *Leontodon taraxacum* in decoction or extract, alone or combined with a small quantity of some opening medicine in case of costiveness, would be useful with or without the chalybeate waters, Gentle exercise on foot, in a carriage, or on horseback, is indispensable with the use of either of these waters; but hard riding or long rides are injurious, as are also crowded rooms and late hours. Moderation in eating



and drinking is of the utmost consequence ; more depends on the quantity than the quality of food, although high seasoned and fried dishes, pastry, dry salted meats, as well as rich heavy puddings, should not be eaten. A moderate quantity of plain boiled or roasted fresh meat and poultry ; boiled or broiled fish, and plain boiled vegetables, without melted butter ; and a small quantity of juicy ripe fruit, taken at two or more repasts, should be preferred to making one copious dinner. Plain water, or weak wine and water, is the best drink to be taken with food and one or two glasses of old Port may be allowed after dinner. Spirituous liquors, even diluted with water, should be forbidden. Tea, with plenty of milk, is a favorable as well as an agreeable beverage. Aqueous acidulated drinks, such as lemonade or soda water, are the best calculated to allay thirst.

The author begs it may be understood, that his opinion of the manner of administering the Cheltenham waters, relates only to the complaints under consideration. There

are many disorders in which their full purgative effect would be found useful; among which various cutaneous diseases and chronic rheumatism may be enumerated.

THE END.

























